

CONNECTION

 SUMMER 2012 | ISSUE NO. 8

Your Link to the Department of Civil Engineering



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SACRAMENTO STATE
Department of Civil Engineering

CHAIR'S MESSAGE



Dear Colleagues and Friends,

As I write to you for this summer edition of our newsletter, I cannot help but reflect back on the past nine years of my time as department chair. The Civil Engineering Department has witnessed dramatic changes during that time: two successful ABET accreditation visits, tremendous growth in the student population, and the development of a much stronger relationship with the professional community.

In my previous article in our spring newsletter, I listed a few of the events and activities that the Department has undertaken during the last nine years. I do not want to list them again, but I would like to emphasize that your participation at any level is essential for our success as a department.

I am delighted to share with you the just-announced results of the campus wide Instructional Program Priority (IPP) review – an evaluation of all Sacramento State departments and programs. Our Civil Engineering undergraduate program ranked in the top quartile and our graduate program in the second highest quartile. The IPP process is an internal review process that was developed by the Faculty Senate. A committee of faculty members from the University evaluated all the reports submitted by the programs and ranked the programs accordingly. We are delighted that the Committee recognized the value of the CE programs. I want to share this recognition with all of you who have been so generous with your support!

We are still struggling with the budget and the challenges it poses. This year, the Dean of the College decided not to admit any California resident students into the graduate program because of limitations on our enrollment and budget. This restriction was imposed on both the Civil and the Mechanical Engineering Departments. Other programs in the College (EEE and CSc) were allowed to admit graduate students. We regret that well-qualified students will be unable to further their education and that our faculty will miss the opportunity to work with such qualified students.

In this issue, you will see a wide range of articles, from highlighting Kit Miyamoto (MS 97) as a Distinguished Alumni to highlighting Kira Davis as a third-generation Civil Engineering graduate. And there are many pictures from our first annual golf tournament, which I missed since rain forced us to reschedule it for a time when I was already committed to being overseas. Based on the feedback I have received, it was a great event. Thank you all for making it so successful, and I look forward to participating next year. I will see you then, if not sooner.

On a personal note, this will be my last time writing to you directly in the Chair's Message. I appreciate your support and I look forward to continuing to see you at our events. I will continue to be a productive member of our faculty and will continue to be there cheering for our students and their accomplishments.

Sincerely,

Ramzi J. Mahmood

KEN KERRI Endowment Fund

'Big Build' Draws Big Audience

More than 140 people gathered for the annual Ken Kerri Endowment Fund luncheon in April, drawn by the opportunity to see old friends, network with new ones, and hear the Director of the Sacramento County Airport System talk about the "Big Build."



It was also an opportunity to hear an update on the endowment fund, which now stands at more than \$103,000, including a \$1,870 donation made by the California Water Environment Association during the lunch. The fund, which honors Professor Emeritus Ken Kerri, supports enhancements to the Civil Engineering program (see the box for how to contribute).

In addition, the luncheon served as a platform for several colleagues and admirers to wish Department Chair Ramzi Mahmood well as he turns the Department's leadership role over to Professor Kevan Shafizadeh. Dr. Mahmood said he will continue to teach and remain heavily involved in the Department, particularly as it continues to strengthen its outreach to industry professionals.

As always, the lunch featured a keynote speaker connected to a project that would interest civil engineers – in this case the new \$1 billion terminal at the airport, which opened in October 2011.

Director of Airports G. Hardy Acree offered several facts that demonstrated how massive the airport project was. The largest capital improvement project in Sacramento County's history, it consumed 3.2 million man-hours through November 2011, employing an average of 450 workers per day and peaking at more than 1,000 workers.

Mr. Acree reported that the airport is the first in the nation to obtain a silver LEED rating for sustainability. Compared to the prior terminal, it has reduced the airport's carbon footprint, is designed to have better indoor air quality, and features ample natural lighting.

The new terminal also is designed for expansion, according to Mr. Acree. The back wall can be removed to add new facilities and there is room for a second and third people mover in the future.

Following a question-and-answer session with Mr. Acree, the luncheon wrapped up with presentations honoring the nine-year tenure of Dr. Mahmood as department chair. Speakers expressed appreciation for the work he has done to build closer ties to alumni and local professionals. In response, Dr. Mahmood encouraged everyone to continue to attend Civil Engineering Department events – and to bring their colleagues to make next year's luncheon even more successful.

WAYS TO HELP

Those who wish to contribute to the Ken Kerri Endowment Fund have two options:

1. Send a check made out to the Ken Kerri Endowment Fund to:

Department of Civil Engineering, Attn: Neysa Bush
California State University, Sacramento
6000 J Street, Sacramento, CA 95819-6029

2. Go online to www.ecs.csus.edu/ce, click on Support the Department, and use a credit card. (This page will redirect you to a secure website where you must designate your donation be dedicated to the "Ken Kerri Endowment.")

Since the University Foundation is a federally certified charity, donations to the fund are tax deductible to the extent provided by law.

ALUMNI WEEK

Alumni Return to Classrooms

A college classroom sometimes can seem divorced from the world of work, no matter how often professors emphasize the practical aspects of a curriculum. That changes during Alumni Week, when practicing civil engineers volunteer to come back to campus to talk to students about the profession.

Seven professionals spoke to eight classes during Alumni Week last spring, taking time out from their normal work schedule to share their expertise across the span of civil engineering, including geotechnical, water, structural, transportation and environmental engineering.



Marco Palilla, PE, PMP, Northern California Water Marketing Manager for HDR Engineering, took on CE 1A, the introductory course to Civil Engineering that he has often addressed in the past.

"I like to cover the three major components of being a successful consultant: the engineering part of it, the marketing and business development aspect, and the administrative work that comes with running a business and managing people," Mr. Palilla explains. "I also like to focus on the value of communication skills. Sometimes students think it's all about formulas and doing calculations – but I let them know that 90 percent of the job is writing reports, memos and letters. That really shakes them up!"

He typically fields questions on employment opportunities and compensation, as well as the value of a master's degree in engineering versus an MBA.

"I usually tell them that if they want to start their own business or go into management, an MBA is valuable," he says. "But if they are more interested in the technical work, then the master's in engineering is the way to go."

Mr. Palilla earned his bachelor's degree at Sacramento State in 1981, followed by his master's degree in civil engineering in 1985. In addition to talking to classes each year, he is

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“ Being involved at Sacramento State is an incredibly rewarding experience... I really enjoy giving students what I consider some very good advice. ” — Marco Palilla

GOLF TOURNAMENT

Teeing Up Donations

The Civil Engineering Department's first annual golf tournament got off to a rocky start when it was rained out on its original date during Alumni Week in April.

However, picture-perfect weather made up for it on May 11 when 66 participants came together and competed in foursomes. First place went to the Quincy Engineering team of Alan Glen, Richard Shepard, Jeff Mathews and Gene Endicott. Winners of the longest drive were Patrick Ryan for the men and Merrin Gerety for the women. In addition to having a great time, the participants raised \$5,200 for the department.



STUDENT FOCUS

CE and Sac State Run in Her Family

When Kira Davis crosses the stage to get her bachelor's degree next spring, she will be following in the footsteps of both her mother and grandmother: three generations of female civil engineers, all graduates of Sacramento State.

"Both my grandmother and mother are humble women so when I was a kid, they didn't emphasize the fact that this is unusual," Kira says. "But I soon discovered in college that even in this era, women in civil engineering just aren't that common."

Her mother, Carolyn Davis, is a civil engineer for Quincy Engineering, where she has worked on public works projects for almost 12 years. Her grandmother, Sandra Hall, retired as a Caltrans civil engineer in 2000.



Sandra Hall, Kira Davis, and Carolyn Davis

Kira didn't set out to be a civil engineer, but it was always in the background as something she could fall back on. She thought she would be happy leaving math behind her when she graduated from high school but she soon realized she missed it.

"So I started taking math in college and pretty soon I had taken all of the applied math classes available," she explains. "I didn't want to do theory, and civil engineering is really all

“Both my grandmother and mother are humble women so when I was a kid, they didn't emphasize the fact that this is unusual... But I soon discovered in college that even in this era, women in civil engineering just aren't that common.” — *Kira Davis*

about applied math. And then the more exposure I got to the physics side of it, the more I loved it. You just look at the world in a completely different way, at how things are put together."

Her mother similarly had not planned to be a civil engineer, initially going into computer science and math in college. But she was working as a student intern at Caltrans and discovered she would be paid more as a civil engineering major.

"I thought, 'Why not?' My parents were both civil engineers and I knew what they did," Carolyn Davis explains. "Pretty soon I found I had an aptitude for it, and now I love it."

Civil engineering was a late career change for Kira's grandmother, who realized that teaching math was never going to make her happy. At age 18, she had wanted to be a civil engineer (her father was a mechanical engineer), but most men in the profession made it clear women weren't welcome. Ms. Hall earned a teaching credential instead. But then she abandoned the classroom, helping her civil engineer husband with some private surveying to get her feet wet. Then, at the age of 34 and already busy raising three children, she headed back to college to pursue her dream.

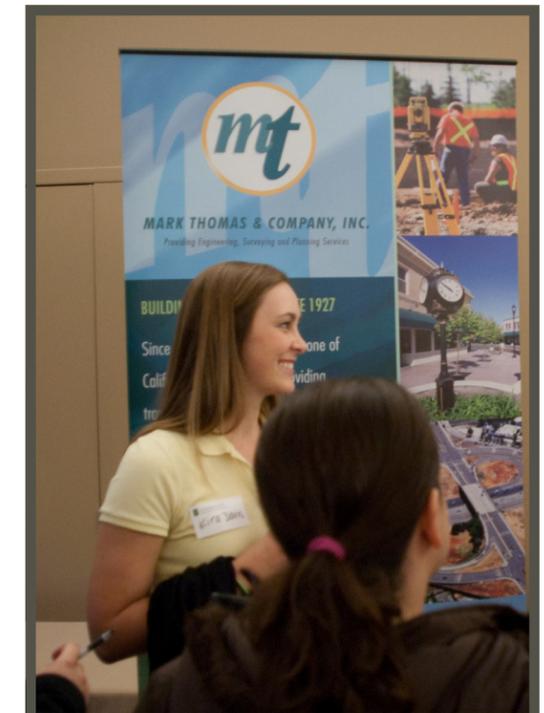
"Later, I met women my age who had gone through college in civil engineering at the age of 18 – but they must have had tougher hides," she laughs.

Kira's already showing signs of the family aptitude for her profession. She has been interning for Mark Thomas & Company for about a year, working on transportation projects. In addition, in her junior year, she won the \$1,000 Molitoris Leadership Undergraduate Scholarship

awarded by the Sacramento Chapter of the Women's Transportation Seminar (WTS) and a \$1,000 scholarship from the local ASCE Ladies Auxiliary.

Her mother and grandmother are proud of her, and Kira sees them as deserving at least part of the credit for her accomplishments.

"It's really amazing and inspiring to have women in your life who are strong and powerful in an industry where women are not fully represented," Kira says. "They really offered a role model for what I could achieve, and I'm very proud to be part of our family."



Kira at Evening with Industry 2011

STUDENT FOCUS

Water Treatment Team Wins at Mid-Pac

Sacramento State sent more than 50 students to the Mid-Pacific Regional Conference at UC Berkeley in March. They came home not only with a win and several strong showings, but also with a host of new connections to other students and industry professionals.

"We can all be proud of how well our teams did," said Erikson Betts, president of Sacramento State's student ASCE chapter. "But this was also a great opportunity for us to get together with students from other schools, see how their programs differ from ours, and network with the many professionals who volunteer their time to help at Mid-Pac."

Sacramento State students took first place in the Water Treatment Competition and have been invited to the next national Wastewater Challenge. Co-captained by Justin George and Kevin Varnum, the team built on their experience at the nationals last year, as well as what they learned in a weekend workshop conducted by Dr. John Johnston last fall.

"They worked really hard and they just did a great job," said Erikson, who attended the presentation component of the water treatment challenge. "This shows how well Sacramento State does in teaching water treatment – but the students are the ones who really made it happen."

Sacramento State students also did well in the Concrete Canoe event, placing third overall and winning a number of seconds and thirds for races, the oral presentation and canoe design. They fared far better than Santa Clara University team members, who got an unexpected dunking

when their canoe split in half during a race. Erikson said several Sacramento State participants displayed good sportsmanship by jumping in the water to help rescue their Santa Clara counterparts.

In addition, the Steel Bridge team won first place for their display, although they didn't make the top three for the overall competition.



Finally, Sacramento State did well in the Transportation Competition, which required teams to design a spaceport. Unlike other events that named first, second and third places, the Transportation Competition only ranked the top two contenders but gave the Sacramento State students an honorable mention for their third-place finish.



ALUMNI SPOTLIGHT

Kit Miyamoto: Making a Difference in the Midst of Disaster

Taking on a highly visible role in helping countries recover from life-shattering disasters, Kit Miyamoto, Ph.D., S.E., was in the first wave of responders after the earthquake in Haiti in 2010 and the earthquake and tsunami in Japan in 2011. He has seen the devastation up close that comes when seismic risk is underestimated. So it would not be surprising if his experiences left him pessimistic.

But Dr. Miyamoto radiates optimism when he talks about the future he sees for civil engineering students and their ability to help people live better lives.

"Civil engineering is fundamental to civilization," he says. "It is needed everywhere that people live. Civil engineers can use their skills in the United States or anywhere in the world; there are many different things they can do and the opportunities are vast. Civil engineering is a great discipline and a wonderful career."

It has certainly turned out that way for him. He earned his undergraduate degree in Civil Engineering at Chico State in 1989, followed by his master's degree at Sacramento State in 1997, and his doctorate in Earthquake Engineering from the Tokyo Institute of Technology in 2010.

Along the way, he built his highly successful company, Miyamoto International, which has gained worldwide recognition for its expertise in high-performance earthquake engineering, risk management and disaster reconstruction. In addition to winning numerous awards, the company has completed more than 12,000 projects around the world since 1997.

Dr. Miyamoto also founded Global Risk Miyamoto, which specializes in assessing and reducing site-specific

risks from natural hazards for major corporations, and Miyamoto Global Disaster Relief, a nonprofit that delivers specialized engineering expertise in the immediate wake of disasters.

All of this keeps him on the road traveling to far-flung destinations too many days to teach, as he once did as an adjunct professor at Sacramento State in 2005. And he sees that as his loss.

"Teaching there was a great experience, and I learned a lot even as I was teaching," he remembers. "Sacramento State is a very special place, different from other schools because the professors really combine theory with actual practice in the field. The university gives Civil Engineering students wonderful exposure to practical experience."

Despite his time constraints, Dr. Miyamoto thinks it is important to give back to the university that gave him such a good grounding in his career. He says he will continue to support the Civil Engineering Department, helping with outreach, developing relationships and cheering on students as they join a profession that he sees as critical to the future.

Distinguished Alumnus



Dr. Kit Miyamoto, MS '97, has joined the ranks of Sacramento State's outstanding alumni. This year, he was honored with the university's Distinguished Service Award. The award is given to those who have achieved prominence in their profession and who have brought distinction to the university through their accomplishments.

Dr. Kit Miyamoto is joined by Dr. Ramzi Mahmood at the ceremony to honor Distinguished Alumni.

NEWS & NOTES

Students

Taking the walk...

On May 19, 56 Civil Engineering students graduated. Twelve earned their master's degrees and 44 received bachelor's degrees.

Scholarship winners...

Several students won scholarships during the spring. Eduard Egov and Hani Nour were awarded the Ronald W. Smith Scholarship. Erikson Betts was awarded the Forsgren Associates Scholarship. Svetlana Skvortson was awarded \$500 as one of six winners of the 2012 Concrete Masonry Association of California and Nevada (CMACN) Scholarship for the Study of Concrete Masonry in the Field of Structural Engineering. She also won CMACN's "2009 Design of Reinforced Masonry Structures" publication and structural design software. The ASCE Ladies Auxiliary provided \$1,000 scholarships to Kira Davis and Nicole Egli.

Outstanding research...

John Tran was one of two Sacramento State undergraduate students to win a \$500 prize in the annual Student Research Challenge. John's presentation was entitled "Experimental Investigation of Ground Motion Effects on Collapse." Twenty-one students from across the campus participated in the competition.

Faculty

Outstanding award...

Professor Kevan Shafizadeh has been honored with an Outstanding Scholarly and Creative Activities Award. The award is one of several granted by the university



each year to recognize the superior accomplishments of faculty and to acknowledge their role in educational excellence at Sacramento State.

Mentor award...



The Office of Research Administration has awarded Professor Benjamin Fell \$500 for his role in mentoring John Tran, who won one of the prizes in the 2012 Student Research

Challenge. The award, which honors commitment to support student research, can be used for professional development activities. "It's a pleasure working with students as dedicated and intelligent as John," Professor Fell noted in response to the award.

Best paper...

A paper by Professor Emeritus Ken Kerri has been selected as the winner of the 2012 American Water Works Association (AWWA) Water Resource Sustainability Division Best Paper Award. The paper is entitled "Comparison of Water Treatment Plants in the Sacramento Region."

Alumni

2012

Marco Lem, BS, reports his first project "fresh out of school" is working on the new 49ers' stadium. His employer, Clark Pacific, "won the bid for the precast concrete, which includes the bleachers and some walls, close to 2000 precast units if not more. At this time, my contribution has been mostly with production coordination, and I eventually will go to the field and assist with the erection of the precast units." He says helpful classes from his college days include CE 101, 113, 166, 164, and ENGR 112, and even though it didn't seem like it at the time, the one and only, the senior project! He also says he has moved to West Sacramento and so no longer will have to commute from the East Bay.

Geoffrey Carter, BS, has landed a permanent position at the Air Resources Board as an Air Resources Engineer. Prior to being brought on board while he was still an intern there, he wrote, "I'm loving my work at the ARB. I've been restructuring a state program. I have been learning a lot about management, databases, and computer science. I'm not so much a technical engineer as I am a strategist in this role. Perhaps the Civil Engineering program at school should involve a study of Sun Tzu's 'The Art of War!'"

2011

Crysten R. Samudio, BS, was hired in February by the State Water Resources Control Board in the Division of Financial Assistance. She works as a Water Resources Control Engineer for the Clean Water State Revolving Fund.

Doumon Kashkooli, BS December '11, EIT, is continuing his education until he can find a job. "I am a deaf graduate in Civil Engineering," he writes. "I am proud to be a Civil Engineer, but I am having difficulty finding a job to fulfill my long term career goals." He notes that he has been taking classes at American River College to add to his skills.

2010

Gillian Montgomery, BS, has been working at Buehler and Buehler Structural Engineers since completing her master's degree at Stanford University in June 2011. She writes, "It's been a transition into the working world but exciting to work on such a multitude of projects." She notes she has also begun studying for the PE exam, which she intends to take in October of this year.

Aleksandr Yaroshevich, BS, has passed the LEED AP BD+C exam and plans to take the PE exam next spring. He works as an engineer for Balfour Beatty Infrastructure Inc., where he worked part-time prior to his graduation. A recent project he worked on was the Vineyard Surface Water Treatment Plant project, building a new treatment facility for Sacramento County. "My responsibilities included subcontractor coordination, crew management, scheduling, material procurement, and cost tracking," he writes. "This project was completed in January, and I am now learning how to estimate and bid large infrastructure projects." The project was Gold LEED certified, which led him to take the LEED exam. He notes that there have also been changes in his personal life: he married in July last year and is expecting a son in the fall.

2008

Tony Symanovich, BS, received his PE last June. He continues to work as a design engineer for Caltrans in Bishop, a job he plans to stick with because of the climbing opportunities and general lifestyle in Bishop. Commenting to Professor Kevan Shafizadeh on the helpfulness of his classes, Tony writes, "They made passing the general PE (Transportation Emphasis) a breeze. I was literally opening the Green Book, HCM, etc., during the PE Exam for the first time since your classes and my background was sufficient enough to figure out the questions during the exam. Others I know who did not have the Transportation Emphasis class background had much more trouble."

Alumni Continued...

1987

Michael Norris, BS, is now retired after working for 22 years as an assistant engineer. From 1987 to 1989, he was with the State Water Resources Control Board's Clean Water Grants Program. From 1989 to 2009, he worked for the Department of Water Resources in the Delta Levees Program. He retired in 2009.



1986

Theron Roschen, BS, has joined Quincy Engineering as a senior project manager, where he will specialize in major transportation projects. He brings his knowledge of pavement management

systems and expertise in the use of rubberized asphalt concrete for roadway applications. Prior to joining Quincy Engineering, he was the chief engineer with the Sacramento County Department of Public Works, where he managed the delivery of regional transportation projects.

Alumni Return to Classrooms Continued...

involved in the Ken Kerri Endowment Fund and chairs the Environmental Engineering and Water Resources graduate program advisory committee.

"Being involved at Sacramento State is an incredibly rewarding experience," he says. "I really enjoy giving students what I consider some very good advice. No one ever told me these things when I was in college, and I think the information would have been very helpful. It's also a lot of fun to see all of these young kids who are interested in engineering."

Judging from the success of Alumni Week, other participants apparently agree with Mr. Palilla about the satisfaction of giving back. The volunteers included Jeremy Zorne, GE, BS 97, MS 03, with Geocon, Inc.; Ofelia Avalos, BS 96, with the City of Sacramento; Kathy Marks with Carollo Engineers; Theron Roschen, BS 86, with Quincy Engineering; Lance Schrey, BS 87, with Quincy Engineering; and Andre Boutros, BS 83, with the California Transportation Commission (CTC).

