

CE CONNECTION

FALL 2010 | ISSUE NO. 3

Your Link to the Department of Civil Engineering

Evening with
AN INDUSTRY

RSVP NOW!

DEADLINE FRIDAY, OCT. 29TH

When: Thursday, Nov. 4

Where: Sacramento State Alumni Center

Cost: Sponsorships available

RSVP to Neysa Bush by Oct. 29 at

nbush@ecs.csus.edu or 916-278-6982



Dear friends and colleagues,

With the new academic year well underway, I am delighted to update you with our Fall edition of CE Connection. We have a year ahead of us that is filled with opportunity as well as challenges.

First, I want to share the exciting news that this year we have record enrollment in both our graduate and undergraduate programs. However, because of budget constraints we have limited seats available for students. We are trying very hard to accommodate our students so the impact on their progress through the curriculum is minimized.

Second, our ASCE student chapter is hosting the Mid-Pacific Conference this year. This event includes the Concrete Canoe, Steel Bridge, and the Water Treatment competitions. The students are already deep into the detailed planning for this event, but they will be looking for help from our alumni and the professional community. We will need your support in a number of ways, including judging events, financing activities and coming out to root for our teams. We will be reaching out early next spring to ask those of you who can to get involved.

Third, in this issue we are highlighting the Department's efforts and commitments to students by striving for excellence in teaching. The Department has a group of faculty members who attended the premier workshop on teaching effectiveness (Excellence in Civil Engineering Education, ExCEED). The Department is supporting and encouraging new faculty members to attend this teaching workshop. See the "ExCEED Take Teaching to Next Level" article for details.

Finally, I want to bring your attention to the 7th annual "Evening with Industry" that will be held on November 4, 2010. The students gain so much from this opportunity to hear from professionals and network with local firms. We appreciate the many firms and individuals who take the time to participate. I am looking forward to seeing you there.

Also don't forget to check out the Alumni News to keep up with old friends and colleagues. Keep sending us your news; we love to hear from you.

Sincerely,

Ramzi Mahmood



SACRAMENTO STATE
Department of Civil Engineering

Evening with AN INDUSTRY

Caldecott Tunnel Overview to Highlight Fall Event

Attendees at An Evening with Industry will not only have a chance to look each other over but will also hear an update on a huge project that is expected to relieve one of the bottlenecks that contributes to East Bay traffic congestion.

An Evening with Industry, the annual fall Department of Civil Engineering gathering of professionals and students, will take place on Thursday, November 4 in the Sacramento State Alumni Center. As always, it is an opportunity for students and companies to explore the potential for internship and job matches.

The keynote speaker for the evening will be Randy Iwasaki, Contra Costa County Executive Director. He will present an overview of the Caldecott Fourth Bore Project, which broke ground in February 2010 and is expected to be complete in late 2013 or early 2014. The tunnel is being constructed using the New Austrian Tunnel Method.

The \$420 million project will allow traffic to flow through two tunnels in each direction on the crowded State Route 24 between Oakland and Orinda. Currently, the center tunnel switches traffic direction depending on the time of day.

In addition to the keynote remarks, an industry panel will be available to answer student questions. The networking segment of the evening allows companies and agencies to set up displays that provide information for students looking for jobs or considering career choices.

Sponsorships can be arranged by contacting Neysa Bush by October 29 at: nbush@ecs.csus.edu or 916-278-6982



KEN KERRI

Endowment Fund
DEPARTMENT OF CIVIL ENGINEERING

Ken Kerri Endowment Fund Luncheon

Last spring, about 175 people turned out for the second annual Ken Kerri Endowment Fund Luncheon. Professor Emeritus Ken Kerri was on hand to thank friends, colleagues and supporters for their ongoing efforts to raise \$250,000 for the fund to enhance the education of future civil engineers.

The endowment fund grew to more than \$63,000 with the help of a \$25,000 contribution from Sacramento State graduates Larry and Louise Walker (Larry is founder of Larry Walker Associates, an environmental engineering and consulting firm based in Davis).

The keynote speaker for the lunch was the Commander of the Sacramento District of the U.S. Army Corps of Engineers, Col. Thomas Chapman. Also attending were 16 alumni who spoke in classes and met with students as part of the first Annual Alumni Day.



Ken Kerri made the rounds at the luncheon. In the top photo are (left to right), Mike Lee, Vice Provost of Academic Affairs; Ramzi Mahmood, CE Department Chair; Ken Kerri; and Col. Thomas Chapman, keynote speaker. In the bottom right photo, Marco Palilla, a member of the Ken Kerri Endowment Fund Committee, chats with Professor Kerri. At bottom left, Professor Kerri with wife Judy.



Sacramento State Prepares to Host Mid-Pac

The Mid-Pacific Regional Conference does not take place until April, but students are already scrambling to prepare for the competitions that involve concrete canoes, steel bridges and cleaning adulterated water. The reason—this time the spotlight will be on Sacramento State as the host for the annual event.

Jesse Ogren, president of the student chapter of the American Society of Civil Engineers, says students will be reaching out to alumni and industry friends of Sacramento State for help with both funding and event assistance, including judging.

“We want to put on a great event and really showcase the Civil Engineering Department and our campus,” Jesse says. “This is an outstanding opportunity for students to get involved and demonstrate the strength of our program when it comes to taking on practical challenges.”

Fellow student Jeremy Herbert has taken on the role of MidPac coordinator and is already juggling with the logistics of hotel rooms, meals and transportation. It’s a big assignment since the event typically draws six or seven universities, each sending between 50 and 100 people.

In the meantime, teams are forming around the three competitions (see sidebar for team leaders).

Rules and specifications for the concrete canoe and steel bridge competitions already have been issued, but the water treatment team will not know exactly what they are facing until later in the year when the instructions for that event become available. All teams are already meeting, however, to lay the groundwork for their strategies and encourage students to participate.

Dexter Early helped the concrete canoe team get a jump start over the summer. As paddling coordinator, he led practices that drew 20 or so students. His secret weapon? Consulting with a local outrigger canoe club on paddling techniques.

“In the past, students haven’t gotten out on the lake to practice until a couple of weeks before the competition,” Dexter says. “But this year, we decided to take a much more aggressive approach. Winning the race is only part of the competition, but it’s the part where practice can make a difference.”



Mid-Pac takes place April 14 through 16, with events on campus and at the Aquatic Center on Lake Natoma.



Team Captains

Water Treatment:
Kristen Martin and Dave Harden

Concrete Canoe:
Travis Weston and Zach Jojola

Steel Bridge:
Phillip Asher and Jeff Riley



STUDENT FOCUS

CE CONNECTION

Graduates Take Next Step in Their Careers

When graduates leave college behind, their success at taking the next step – whether finding a job or entering graduate school – is the result of their own hard work. When asked, however, many of them are quick to credit the strength of the academic program provided by the Civil Engineering Department for giving them an edge.

CE Connection checked in with seven 2009/2010 graduates to find out where they are and ask for their reflections on what they learned at Sacramento State. Two have already begun their careers, two are in our graduate program, two are entering the graduate program at Stanford University, and one is a commissioned officer in the U.S. Navy who will soon be posted to Spain.

Into the Working World

Stephen Nelson and Nicole Weideman Winzenried both walked out the door with their degrees and into immediate full-time jobs that grew out of their internship experiences.

Today, Stephen is a design engineer for Mark Thomas & Company, the firm he interned with for four years after connecting with them at a department-sponsored career fair.



“I think it is important for students to get an internship before graduating so that they can experience what it is like to work on civil engineering projects,” Stephen says. “This will also help students determine what area of civil engineering they want to focus on. My internship gave me a great opportunity to apply what I was learning at Sacramento State to real-world engineering.” Stephen cites the hands-on learning with

professors who have professional experience as an advantage that the Sacramento State program provides. He also advises students to pass their EIT/FE exam before they graduate “because prospective employers look for that on resumes,” as well as participate in clubs. In addition to being a member of ASCE, Stephen served as the president of the student Institute of Transportation Engineers (ITE), where he improved his time management skills and public speaking.

Nicole is with Parsons Brinckerhoff, where she had her fourth internship during her college years. Hired in the Water Department, she is currently on loan to Construction Management, working on the Natomas Levee Improvement Projects.

“I spend my days in a triple-wide construction trailer doing engineering work, inspection and site visits, as well as construction administration,” she reports.



In addition to internships, Nicole stresses getting involved in student clubs and other activities as the key to post-graduate success. She was a student representative on the Civil Engineering Program Industrial Advisory Committee, paddling coordinator for Concrete Canoe, professional coordinator for ASCE, and active member of Engineers Without Borders (EWB)

student chapter. “These activities gave me experience in dealing with people and coordination that played a key role in my ability to land a job out of college,” she says. “I did sacrifice study time and free time to put time into clubs and working through school, but I believe that is what gave me that edge over the next student to land my job offer.”

Entering Sac State Grad Program

Both Regina Toney and Patrick Young went directly from the undergraduate to the graduate program at Sacramento State. Patrick, however, had to wait a semester. He graduated in December 2009 but budget constraints kept the Civil Engineering Department from offering graduate school openings in the spring.



It was worth the wait, according to Patrick. “I feel comfortable on campus, taking classes with professors I know. Graduate school is going to be a challenge, but I believe that my undergraduate course work had many challenges that have prepared me for what is to come.”

One of the things Patrick appreciated most about Sacramento State’s undergraduate curriculum was its emphasis on practical applications of engineering. “I found this to be very helpful, both for my overall knowledge of engineering and looking to the future for a career,” he says. “The focus on very practical applications is one of the reasons I chose Sacramento State for my graduate program.”

Like Patrick, Regina says the “hands-on approach to realistic issues” that she sees in the graduate program was a significant



factor in her choice of Sacramento State for her master’s degree. She believes the graduate school experience will prepare her for any challenges during her career, giving her the tools to seek out information and make educated decisions based on facts.

Regina credits her undergraduate experience at Sacramento State with giving her confidence to communicate with more experienced engineering colleagues and identify practical solutions that can be implemented in the field.

“The most helpful aspect of the undergraduate program was the Senior Project,” she says. “This course helped me understand the dynamics of a realistic small-group, problem-solving team and helped me gain technical public speaking experience to a large group of people.”

On to Other Graduate Programs

Both Gillian Montgomery and Zachary Craig began Stanford graduate programs this fall in the Structural Engineering and Geomechanics Program.

After continuing her job as student assistant at the Regional Water Quality Control Board during the summer, Gillian has buckled down to tackle the accelerated, nine-month master’s degree program, focusing on earthquake engineering. She’s grateful to Professor Ben Fell for setting her on that path, “providing the inspiration and advice, and giving me the confidence, to pursue a career in structural/seismic engineering and attend a prestigious university.”



In addition, she appreciates the solid program provided at Sacramento State and the practical experience of the required senior project.

“Sacramento State has provided me with both the technical base and the interpersonal skills for success,” she says. “Most of all, the Senior Project class is extremely helpful in learning how to handle deadlines and prepare a high-quality standard of work for both my graduate and professional career.”

continued on page 8 ➔

“ I think it is important for students to get an internship before graduating so that they can experience what it is like to work on civil engineering projects... ”

STUDENT FOCUS

➔ continued from page 7

While Zach echoed many of the comments from other graduates about the opportunity for extracurricular activities at Sacramento State, he calls the strength of faculty-student relationships as the strongest attribute that sets the program apart from others.



"It is very encouraging to see professors taking the time to know each of their students as individuals and to push each of them to their

full potential," he says. "I have friends in other Civil Engineering programs that have a majority of professors who don't know their students' names. I am proud of where my education at Sac State has gotten me and I couldn't see myself where I am today without the help and motivation that I received from my professors and my fellow students."

In addition to serving as president of the Structural Engineers Association of Central California (SEAOCC) student club, Zach also completed a student research project under the guidance of Professor Fell, analyzing the more complicated "real-solution" of forces within a truss in comparison to simplified truss analysis methods used in undergraduate classes. He submitted his research to a California State University competition, presenting his results in a paper and in an oral presentation.

“ In a construction technology class, we were tasked with designing simple concrete beams for testing... ”

"This experience should be very helpful for future research projects that I may do during my stay at Stanford," he says.

Naval Commission

Dan Cloutier has received training in public works, construction contract management and contingency construction since being commissioned as an officer in the U.S. Naval Civil Engineer Corps. As the fall began, he was dispatched to Spain, where his unit will be involved in construction projects throughout Europe and Africa.



During his Navy training, he was able to put his Sacramento State experience to good use. "In a construction technology class, we were tasked with designing simple concrete beams for testing," he reports. "Using what I learned in my

concrete design courses at CSUS and on the concrete canoe team, my group came up with some improvised prestressing cables that gave our beam one of the highest strengths in the class!"

On a more serious note, Dan says the strength of Sacramento State's program is already helping him in his new career.

"The exposure to projects and industry professionals I got while in the Civil Engineering program at Sacramento State helped me gain an understanding of how complex infrastructure projects are designed, built and maintained," says Dan. "That is directly applicable to the work I do now."

FACULTY

UP CLOSE

ExCEED Takes Teaching to Next Level

New faculty members arrive at a university with breadth in their field and depth in their specialty. But how they transfer that knowledge to students is sometimes the result of trial-and-error and can take years to develop.

Excellence in Civil Engineering Education – ExCEED – aims to speed up the process by putting faculty members through a six-day summer boot camp that emphasizes the fundamentals of teaching effectively. The program, which originated as a solution to West Point rotating its faculty in and out of classrooms, is sponsored each summer by the American Society of Civil Engineers (ASCE).

"Most professors are experts on content but not necessarily on how to teach that content," says Professor Matt Salveson. "ExCEED applies, in a condensed fashion, all the same principles that K-12 teachers learn as part of their credential, but in an engineering context."

The course covers topics such as establishing rapport with students, generating intellectual excitement and teaching appropriately for diverse learning styles, according to Professor Salveson. It also focuses on the format and organization of lectures, stressing a logical way to prepare and present lectures that is efficient for professors and effective in helping students learn.

Professor Salveson was so impressed with the program when he took it in 2009 that he returned in 2010 as an assistant mentor. Four other Sacramento State professors have also participated.

In 2000, Professor Ed Dammel was the first to go through the program. He came back convinced that it has great value for young professors.

"I implemented a lot of what I learned there," he says. "It has had a substantial influence on how I manage classes and approach teaching. One technique that has been particularly valuable is establishing a list of learning objectives for each class meeting. It keeps everyone focused and serves as an accountability system for students to know what they are responsible for knowing."



Professor Matthew Salveson, P.E.



Professor Ed Dammel

continued on page 10 ➔

FACULTY

UP CLOSE

ExCEED Takes Teaching to Next Level (continued)

Professor Saad Merayyan, who took the program in 2009, agrees. "It's an amazing program that provides you with the tools of how to be an effective teacher," he says.

"Even though I had already taught for two years at Cal Poly and then two years at Sacramento State, I found it was extremely helpful."

What Professor Ben Fell particularly appreciated about the program, which he participated in last summer, was the opportunity to focus on teaching without "research deadlines, meetings and other distractions I have during the semester."

"Overall," he said, "it was an intense week, but a great experience and will certainly improve my delivery of engineering concepts in the classroom."

Professor Kevan Shafizadeh, who attended in 2007, said encouraging faculty members to participate in ExCEED is one more way the department is improving the quality of instruction within the Civil Engineering program.

"This department and university are both recognized for bringing high-quality professors into the classroom, and this program helps us continue with those high standards," he says. "By focusing on the skills and techniques that best help students learn, we can more easily help our students learn more effectively. Programs like ExCEED represent a win-win situation for both students and faculty."



Professor Saad Merayyan



Professor Benjamin Fell, P.E.



Professor Kevan Shafizadeh, P.E., PTOE

LADIES AUXILIARY

An Old Tradition Focuses on Supporting the Future

The idea of a ladies auxiliary group may bring to mind a slower era when wives mostly stayed at home, occasionally getting together to socialize and offer their support for good works.

Despite its roots in that tradition, however, the local ASCE Ladies Auxiliary Group is very much a forward-looking organization, according to Anna Rita Neuman, the group's treasurer and scholarship chair.

"It has always provided social get-togethers for the wives of civil engineers, with monthly lunches, a book club, and bridge games," she explains. "But we are also very dedicated to the future, providing scholarships to women who are studying to become civil engineers."

In fact, the club recently decided to funnel its dedication in one direction: Sacramento State. Ms. Neuman says the auxiliary members really enjoy interacting with the scholarship winners at their awards luncheon, which wasn't always possible in the past when the students were from Chico State or the University of the Pacific.

Scholarship applicants must be women who are civil engineering majors with GPAs of at least 3.0.

In May, the Ladies Auxiliary Group awarded two \$1,000 scholarships to Sacramento State students Liana Clarke and Kristen Martin. Ms. Neuman says the club was particularly impressed that Liana had completed the Engineer-in-Training certification and that both were already working in the field. Liana is a student intern for the City of West Sacramento and Kristen is a student assistant at the Central Valley Regional Water Quality Control Board.

In addition to collecting \$15 in dues annually, the club encourages donations and bequests to raise each year's scholarship funds. One scholarship, the Helen Samarzich Memorial Scholarship, is funded by a son in honor of his mother, a long-time member.

The club recently began its cycle of monthly lunches once again, starting off with the traditional annual September picnic that includes husbands. Ms. Neuman is looking forward



to the monthly gatherings but is worried about the future. As the wife of civil engineer and Professor Emeritus Bill Neuman, she belonged to the club for years but only became active when she retired from her own career in education in 1997. She has watched the membership diminish to about 45 today.

"So many younger women who are wives are also working," Ms. Neuman says. "They simply don't have time to take part. But I paid my dues for years while I was still working even though I couldn't come to the activities because I wanted to support the scholarships. I hope in the coming years we can encourage more young women to get involved."

ALUMNI SPOTLIGHT

CE CONNECTION

Beverly Mason Stays Involved on Campus

Beverly Mason graduated from Sacramento State in 1999 with her bachelor's degree in Civil Engineering. She started her new career at Parsons Brinckerhoff, where she had been a student intern in her senior year.

Four years ago, she moved to AECOM Transportation and currently manages public outreach for the Sacramento-to-Fresno segment of the California High-Speed Rail program.

Beverly's story is not an unusual one. Sacramento State students often parlay internships into solid first jobs and then pursue their careers at high-profile projects. But Ms. Mason is not a typical graduate, either in how she became a civil engineer or the degree to which she is involved in encouraging others, both students and professionals.

Already the wife of a Caltrans civil engineer and the mother of two children, Ms. Mason was working in the retail clothing industry when she decided to return to college and transfer her sights from a business degree to civil engineering. She soon became involved in the student chapter of ASCE on campus.

Once she was in the professional world, she continued her membership in ASCE, rising to



president of the Capital Branch just in time to provide support to Sacramento State students who were hosting MidPac, the annual competition that engages budding civil engineers in projects from building bridges to racing concrete canoes.

It wasn't the first time she was back at her alma mater. Soon after she graduated, she became a member of the Civil Engineering Program Industrial Advisory Committee (CEPIAC), the organization that provides the Civil Engineering Department with the insight needed to keep the curriculum relevant to the professional world.

"I started as a new graduate who could provide a perspective as someone coming out of the program and entering the profession," Ms. Mason says. "Over the years, I transitioned to focusing on how the professional within the community can give back to students and also receive information from the academic program."

“Professionals from all of the different branches of civil engineering come into the classroom and talk about the actual work that engineers do.”

Now completing her second year as chair of CEPIAC, she continues to encourage the academic and professional interaction that she believes enriches the curriculum at Sacramento State.

"One of the unique aspects of the Sacramento State program is the freshman course that really provides students with an overview of the profession," she explains. "Professionals from all of the different branches of civil engineering come into the classroom and talk about the actual work that engineers do. So many students know that civil engineering involves math and science, but they don't know how it relates to improving the communities within which we live. This is one of the many courses that give students an opportunity to see and talk to someone from the professional world."

In addition to her work with ASCE and CEPIAC, Ms. Mason is on the board of Women's Transportation Seminar (WTS), an international organization dedicated to the advancement of

women in transportation. For both ASCE and WTS, she serves as the liaison to Sacramento State to encourage students to apply for scholarships available from both organizations. In addition, Ms. Mason has worked directly with Sacramento State students, serving as a client for senior projects.

Neither a full-time job nor a busy family life keeps Ms. Mason from contributing her time to cementing the connection between the academic and professional worlds. It's a model she encourages all professionals to follow, giving them access to current research and providing a helping hand to the next generation.

Alumni Honored with ASCE Awards

When the Sacramento Section of the American Society of Civil Engineers recently announced its 2010 award winners, Sacramento State was pleased to note the many connections to our Civil Engineering Department. In addition to a current student* and a faculty member,** the following winners are graduates of our program:

Sacramento Section Award	Award Winner	Company
Outstanding Civil Engineer in the Private Sector	Ric Reinhardt	MBK Engineers
Outstanding Civil Engineer in the Public Sector	Pete Ghelfi	SAFCA
Outstanding Civil Engineering Student	Jesse Ogren*	California State University, Sacramento
Jonathan Burdette Brown ASCE Education Award	Dr. John Johnston**	California State University, Sacramento
Outstanding ASCE Practitioner Advisor	Josh Wagner	U.S. Army Corps of Engineers
Drury Butler Officer of the Year	Jeremy Zorne	Geocon
Thomas A. Stanton Outstanding ASCE Event	Pamela Creedon	EWRI
Sacramento Section Institute Awards	Nomination	Company
William H. Hall Flood Control Award	Ricardo Pineda	California Department of Water Resources

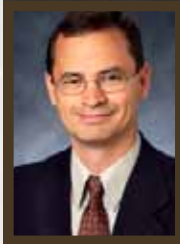
Students

Two Win Public Works Scholarships... On April 2, Civil Engineering students Travis Weston and Stephen Nelson were awarded scholarships by the Sacramento Section of the American Public Works Association (APWA). Travis was awarded a 2010 APWA Scholarship, and Stephen was awarded the first annual James C. Ray Transportation Scholarship.

Faculty



Over the summer, Professors Saad Merayyan and Eric Matsumoto were promoted... Dr. Merayyan was promoted to the rank of associate professor and granted tenure, while Dr. Matsumoto was promoted to the rank of full professor. Faculty rankings include assistant, associate, and full professor. Both faculty members were reviewed by department-level and college-level committees, College Dean, and University Provost. Both were granted promotions based on their teaching, research, and service work while in the Department during the past six years. Congratulations, Saad and Eric!



Dr. John Johnston has won recognition from the Sacramento Section of the American Society of Civil Engineers as an outstanding professor. He received the 2010 Jonathan Burdette Brown Education Award at a ceremony in September.

Alumni

Alumni from across the years have shared news about their careers and lives. If you would like to be included in the next issue, send information to ceconnect@ecs.csus.edu. (Note: Unless otherwise noted, graduates received bachelor degrees in Civil Engineering at the end of the academic year.)

2007

Niranjen Kanepathipillai, a Transportation Engineer (Civil) with Caltrans, Division of Engineering Services is updating his last Alumni Note. His current assignment is to inspect the Russian River bridge construction project in Ukiah. It is a five-span, box girder, prestressed bridge. The columns are CISS (66" diameter) piles. He notes that the most interesting part of the construction so far was the driving test pile and performing PDA and static load testing. The static load test equipment was actually the second largest test equipment that Caltrans owns. Its capacity is four million pounds. He joined Caltrans in January 2008. Before the current bridge assignment, he worked on Elk Soldierpile Tieback Wall (Kristoferson Wall-Highway 1), Irmulco Wall (Highway 20), and Ten Mile Bridge (demolition). On a personal note, he married Pavithrah Tharmaseelan on January 21, 2010.

2004

Maria Torres-Vinson is now at Caltrans as an Airport Engineer after working for Nolte, City of Citrus Heights and Kitchell earlier in her career. She inspects airports, working in a unit that has six pilots, several planners, four engineers, and two airplanes. Her goal is to transfer to the structure or bridge division. She reports that she passed the seismic and surveying exam on her first attempt and the eight-hour portion on the second.

1979

Peggy Hill (nee Henton) is Project Manager/Pavement Engineer for 902 Civil Engineering Squadron, Randolph Air Force Base, Texas.

Raphael Torres was appointed Deputy Director of the California State Water Project by Governor Schwarzenegger in June 2006. He has been employed by the Department of Water Resources (DWR) since his days as an engineering student assistant in 1977. He became a full-time employee after graduation in 1979 and became a registered civil engineer in 1983. He has held several management positions in DWR, including Division Chief of the Division of Engineering, Executive Manager for the Federal Energy Regulatory Commission relicensing of the Oroville Dam hydro power facilities, Assistant Chief of the Division of Operations and Maintenance, Chief of the Civil Engineering Branch, and Chief of the Canals and Levees design section. Raphael is also a

licensed Geotechnical Engineer (1991) and served as DWR's geotechnical specialist for a number of years. Raphael continues to be involved with CSUS by speaking to engineering classes and student organizations, as well as serving on the Civil Engineering Program Industrial Advisory Committee. Recently, Raphael worked on establishing an inter-agency agreement between DWR and California State University Sacramento that will be mutually beneficial to both organizations.

1977

Eddie Kho (also MSCE 1985) is an ASCE Fellow, a LEED Accredited Professional, and a Licensed Professional Civil Engineer in California, Nevada, Oregon and Washington. He is the President and Chief Executive Officer of Morton & Pitalo, Inc., a locally owned civil engineering, land surveying and landscape architectural firm that celebrated its 34th anniversary this year. Earlier this year, he was honored by ASCE Region 9 as their 2009 Outstanding Civil Engineer in the Private Sector and by the Sacramento State Alumni Association with the 2010 Distinguished Service Award for his dedication and service to the campus, the community, and the engineering profession. In July, he became the Vice President of ACEC California, the largest member organization of the American Council of Engineer Companies (ACEC).

1960

Sam Crabtree, RCE14295, retired in August of 2005 at the age of 70 to sail off with his wife to Mexico and beyond. He reports that due to family medical problems, he ran out of money sooner than he had planned. He returned to California in October 2009 and the working professional world in March 2010.

Reaching Out to the Next Generation

A National Science Foundation-funded study being conducted by four universities will eventually lead to a better understanding of how buildings collapse during earthquakes. Well before the results are in, however, the project is already having an impact on local middle school students.



Above a middle school student uses books to test the strength of his paper structure.

Two three-day workshops in August each brought 15 students to Sacramento State for an introduction not only to earthquake engineering but also to engineering as a potential career choice.

"We started with a very general overview of engineering at the 10,000-foot level, and then focused on civil engineering," says Professor Benjamin Fell. "We then moved on to earthquake engineering, going into some very simple concepts about how the weight and stiffness of structures can be used to calculate the period of vibration during an earthquake."

Students went from working with theories in the computer lab to conducting experiments in the structure lab with the shake table. Hands-on activities included making paper structures and testing their ability to support weight. They also built structures out of marshmallows and uncooked spaghetti that were judged based on their height.

"The workshops were a huge success with both the students and their parents," Professor Fell says. "With the shortage of engineers faced by California and the country, it's really important to encourage young people to consider going into engineering. Having them see a building collapse on a shake table and helping them understand why can leave a lasting impression."

Professor Fell was invited last year to have Sacramento State be part of the study, which includes Stanford University, the University of New Hampshire and SUNY Buffalo. The three-year project will use hybrid testing to analyze the collapse of multi-story buildings and complex structural assemblies, including multi-axial loaded frame members with slab effects and innovative connections for gravity frames.

CE CONNECTION



SACRAMENTO STATE
Department of Civil Engineering