Fall 2011 Berkeley Connections Civil and environmental engineering | University of California, Berkeley

CHAIR'S MEMO Dear CEE Alumni and Friends:

l am delighted to share with all of you the news from CEE.

We invite you to read about CEE's innovative new graduate program in Energy, Civil Infrastructure and



and Lisa Alvarez-Cohen

Climate; our new faculty member in Surface Water Hydrology, Dr. Sally Thompson; our new research center, Berkeley Environmental Solutions Laboratory; as well as about the new additions to our Advisory Council and staff.

In this issue, we also feature a personalized history of the first 75 years of CEE at Berkeley, carefully compiled by two of our distinguished emeriti faculty, Carl Monismith and Karl Pister. We hope you'll enjoy reading about our new additions as well as about our legacy, without which we would not be the highly ranked department we are today.

We are proud to announce that Armen Der Kiureghian, faculty member of the Structural Engineering, Mechanics and Materials program,

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Innovative New Graduate Program

This fall, eight students have enrolled in a new cross-disciplinary CEE graduate program: Energy, Civil Infrastructure and Climate (ECIC).

CEE developed ECIC in response to a need for professionals who could tackle the complex problems that exist between the interrelated systems of energy, climate, and infrastructure. The goal of the program is to produce professionals with the capability of conducting analysis from a variety of perspectives, integrating engineering, environmental, economic, and management concepts. With this analytic breadth, they could tackle the complex problems that exist among these three areas, such as the energy efficiency of buildings, environmentallyinformed design of transportation systems, energy of generating construction materials, and electricity from renewable sources.

"Energy, climate and infrastructure systems are closely tied together, and such connections manifest themselves in many forms," said Professor Arpad Horvath, ECIC program leader. "For instance, energy systems with the lowest possible greenhouse gas footprint are a key to mitigating climate change. Civil

infrastructure systems are the backbone of society, and they are also major users of energy that need to be more efficient for sustainable development."

The eight students who make up the inaugural ECIC class came from civil and environmental engineering, mechanical engineering, environmental resources engineering, and physics backgrounds.





Sally Thompson

In the warm and dry parts of the world, the fate of most rain, up to 95% of all precipitation in some cases, is to get sucked up a tree and returned to the atmosphere. The interaction of plants and water at landscape scales has important implications on the availability of water for people, agriculture and ecosystems.

It is the study of these interactions that forms the basis of the emerging field of eco-hydrology and the research interests of Dr. Sally Thompson, CEE's new Assistant Professor in Surface Water Hydrology.

Sally's research addresses the interconnections



ECIC helps students build skills in a variety of areas, such as energy analysis, life-cycle assessment, infrastructure systems, public policy, and economics. Arpad Horvath ECIC program leader These students were drawn to the new program because it will help them build skills in a variety of areas, such as energy analysis, life-cycle assessment, infrastructure systems, public policy, and economics.

"I applied to ECIC because the program will help me understand the physical and social systems that support our society—and will teach me how to work collaboratively with policymakers and scientists to make green energy more affordable, provide clean water, and improve our urban infrastructure," says Michael Taptich, MS/PhD candidate.

Upon graduation, these individuals will qualify for employment, for example, in government agencies dealing with infrastructure or energy, national laboratories, think tanks, utilities, energy providers, and in strategic/management/ engineering consulting. With a doctorate, they will be qualified for academic positions.

The faculty members who are part of the ECIC program bring a strong emphasis in CEE disciplines, but the program also brings in expertise in economics. public

policy, risk assessment, and law. CEE faculty include Ashok Gadgil, Steven Glaser, Robert Harley, Arpad Horvath, Samer Madanat, William Nazaroff, Claudia Ostertag, Juan Pestana, Nicholas Sitar, and Bozidar Stojadinovic.

For more information, visit www.ce.berkeley.edu/ programs/ecic.

between ecology, hydrology and the human dimensions of water.

"Right now the rate of land use change is accelerating globally. It rivals climate change and variability in its impacts on water cycle dynamics," says Sally. "These changes have big implications for water resources which depend both on the choices we make about water use and catchment management and the way that natural systems alter their behavior in response to global change. What hydrologists are realizing is that water is not just about water anymore."

Sally earned her PhD from Duke University in May 2010. She will begin teaching in CEE's Environmental Engineering program in spring 2012. She will teach surface water hydrology courses, eventually developing new courses in the areas of eco-hydrology and water resource sustainability.

How to Support CEE

Visit www.ce.berkeley.edu and choose "Make a Gift to CEE." If you would like to designate what your gift should support, note this in the Special Instructions section.

CHAIR'S MEMO CONTINUED FROM PAGE 1

was elected this year to the National Academy of Engineering. And we are sad to announce the retirement of Adib Kanafani and Robert Bea, two of our world-renowned faculty. I am sure many alumni will join me in thanking both Adib and Bob for their hours of tireless service to the department, its students, and to the field of civil and environmental engineering.

As you know well, the department is currently experiencing an unusually difficult budget environment. The reductions in state funding for the university means that more is being asked of everyone, whether it be increased fees for our students, reductions in support for our faculty, or more hats to wear for our staff. In this climate we are more grateful than ever to those who support students and faculty through contributions. endowments, and fellowships. I invite you to read about the drive to support CEESLE, our newly created endowment to support student activities.

I want to sincerely thank all of you who stand by our department in so many ways. Your support has been instrumental in helping us provide the world class academic environment that prepares our students to lead the way in meeting the challenges that face society. CEE continues to be #1 and it is because of you!

Go Bears!

Lisa Alvarez-Cohen Fred and Claire Sauer Professor of Engineering and Chair Civil and Environmental Engineering



Julia Morgan, one of the West's finest architects, graduated from Berkeley's Civil Engineering department in 1894.

Berkeley Environmental Solutions Laboratory

In retrospect, solving pollution problems during the twentieth century was easy: build a water treatment plant; install catalytic converters on cars; dig up a hazardous waste site. The new generation of problems facing society cannot be fixed with what engineers used to refer to as "end-of-the-pipe solutions". That's why the Berkeley **Environmental Solutions Laboratory** (BESL) was created. Building on the successful model of the Berkeley Water Center (bwc.berkeley.edu), Berkeley's College of Engineering created BESL in response to environmental problems caused by population growth, climate and resource constraints.

So where's the lab? Berkeley already has plenty of laboratories where researchers learn about environmental processes. BESL's "laboratory" is a space where researchers from different parts of campus come together to share ideas about new ways to solve complex problems. Based at the former site of the Water Resources Center Archives in O'Brien Hall, BESL offers support to Berkeley faculty members and assists researchers in convening interdisciplinary teams, putting together proposals and communicating results of solutionsbased inquiries.

According to CEE Professor David Sedlak, BESL's director, "BESL is more than just another environment institute. It's a place where cutting-edge solutions to urgent problems are formulated, developed and tested."

Consistent with its goal of bringing new perspectives to complex environmental problems, BESL engages researchers from the entire campus community. David says, "If engineers want to help solve our greatest environmental challenges, we



Grad students Justin Jasper and Daniella Rempe conduct research at the Discovery Bay treatment wetland facility.

need to work with experts in fields like resource economics, city planning, public health and environmental science."

BESL has been quite active during its first year, helping to secure funding for a new NSF Engineering Research Center, in partnership with Stanford, Colorado School of Mines and New Mexico State University, titled, "Reinventing America's

Urban Water Infrastructure" (www.urbanwatererc.org). BESL also has helped a team of Berkeley researchers secure funding for a NIEHS-funded Superfund Research Center to solve problems associated with hazardous waste. BESL is currently working with both centers to communicate the research solutions to policy makers and the public.

Meet Robert Nickell, New Advisory Council Member



Robert E. Nickell (Engineering Science BS '63, MS '64, PhD '67), structural integrity consultant and president of the company, Applied Science & Technology of San Diego, California, joined CEE's Advisory Council in Spring, 2011. After a career of providing

technical support for a variety of government and industrial organizations, Bob founded his

own company and, for the past 32 years, has provided consulting services on long-term operation of nuclear power plants and the vulnerability assessment of critical infrastructure to terrorist attack, among other areas. Bob currently consults on the structural integrity of Alaska offshore oil and gas platforms and, following the September 2010 San Bruno natural gas transmission pipeline disaster, provided technical support to the California Public Utilities Commission and their independent panel investigation.

Bob was the 118th president of the American Society

of Mechanical Engineers in 1999-2000, and is a Fellow of ASME and the American Association for the Advancement of Science. He has been honored with the Naval Structural Mechanics Award by the Office of Naval Research and the American Institute of Aeronautics and Astronautics (AIAA). In 2007, Bob was elected to the National Academy of Engineering.

Bob credits his thesis advisor, CEE Professor Jerome Sackman, and the Berkeley method of "individually motivated original research" for helping him greatly throughout his career.

"Jerry laid out the rules for our interaction. He said it was my job to teach him everything I was able to learn about my thesis subject-not for him to teach me."

As he reflects on his goals as a Council member, Bob says, "The major challenge to CEE is fairly obvious—to maintain the high quality of its faculty and its international reputation while dealing with its annual budget problems. I am also interested in exploring how CEE's curriculum correlates to the public perception that civil engineering is the go-to organization for improving a decaying national infrastructure."

BESL's "laboratory" is a space where researchers from different parts of campus come together to share ideas about new ways to solve complex problems. **9** David Sedlak *BESL Director*

Civil and Environmental Engineering at Berkeley: The First 75 Years



Carl Monismith



Karl Pister

achievement in California and beyond. This historical summary records some of the people, places, and chronology of the early history of CEE at Berkeley.

From the very inception

California, its founders

made it clear that Civil

Engineering (CE) was

key to the growth and

prosperity of the young

state of California. The

faculty and graduates

of the currently named

Engineering (CEE)

Department have

Civil and Environmental

proved them right, building

a world-leading program at

UC Berkeley and a legacy of

of the University of

The University of California was established in Berkeley in 1868 with a charter that provided for six colleges: Agriculture, Letters, Chemistry, Civil Engineering, Mechanics, and Mining. The Colleges of Civil Engineering and Mining were established in 1872 and the College of

Mechanics in 1878. Frank Soule, a US Military Academy graduate, was appointed as Professor of Civil Engineering and was named Dean of the College in 1896, a position he held until 1907.

Early buildings occupied by CE included: Civil Engineering and Mining Building (Fig. 1), located on the east side of what is now the Campanile Esplanade (about 400 ft. north and 650 ft. east of South Hall); Mechanics Building (Fig. 3) with a hydraulics laboratory (the Bechtel Engineering Center now occupies its site); and Engineering Materials Laboratory (Fig. 2) (Davis Hall now occupies its site.) When the Engineering Building (now McLaughlin Hall) was completed in 1931, most of the CE faculty moved there.

A number of notable CE faculty hired from the inception of the program to 1946 are listed in the accompanying table together with their specialty fields and periods of service. This group remained as faculty at Berkeley for many years, and this faculty tradition of long service continues in CEE to this time.

In 1931 the Colleges of Civil Engineering

We invite comments and recollections from alumni/ae to enrich our files on the history of the department.

Karen Holtermann, College Relations, College of Engineering.

This overview of the early years of Civil and Environmental Engineering at Berkeley was researched and written by Professor Emeritus Carl

Monismith with input from Dean and Professor Emeritus Karl Pister and

and Mechanics merged to become the College of Engineering (COE), with the College of Mining joining in 1942. Professor Charles Derleth followed Professor Soule as Dean of the College of Civil Engineering in 1907 and became Dean of COE in 1931. He remained in this capacity until his retirement in 1942. Professor Donald McLaughlin, Dean of the College of Mining

at the time of its merging with COE, followed Derleth as Dean of the newly consolidated COE for 1942-43. He was succeeded by Professor Morrough P. O'Brien (known as the "Father of Coastal Engineering"), who remained as Dean until 1959

It was during the O'Brien period, particularly following WWII, that the graduate programs in the COE expanded very rapidly, which led to an expansion of the number of faculty in CE and the other departments. The Engineering Council for Professional Development (ECPD) was established in 1932 as the national body

> 1. Civil Engineering Materials

Some Early CEE Faculty

Charles Derleth

Structures, Foundation Engineering 1903-1944 | 41 years of Service

Charles Gilman Hyde

Sanitary Engineering 1905-1944 | 39 years of Service

Bernard Etcheverry

Irrigation Engineering 1905-1950 | 45 years of Service

Francis S. Foote

Surveying and Railroad Engineering 1912-1954 | 42 years of Service

Sydney T. Harding Irrigation Law 1914-1949 | 35 years of Service

Clement T. Wiskocil *

Materials, Contract Law 1914-1952 | 38 years of Service

William Langlier

Sanitary Engineering, Chemistry 1916-1956 | 40 years of Service

Raymond E. Davis

Materials (especially concrete), Structural Engineering 1920-1952 | 32 years of Service

Bruce Jameyson

Structural Engineering 1920-1956 | 36 years of Service

George E. Troxell Materials, Structures 1920-1963 | 43 years of Service

Harmer E. Davis

Materials, Structures, Soil Mechanics, Transportation 1930-1973 | 43 years of Service

Howard D. Eberhart

Structural Engineering (following WWII, engineering-based prosthetic development) 1936-1974 | 38 years of Service

Joe W. Johnson

Coastal Engineering 1943-1975 | 32 years of Service

Egor P. Popov

Structural Mechanics and Engineering 1946-1976 | 30 years of Service

T.Y. Lin

Structural Engineering (especially bridges, pioneered use of prestressed concrete) 1946-1983 | 39 years of Service

*deceased prior to retirement

charged with accrediting engineering programs, and soon thereafter, in 1936, CE and other programs in the COE received ECPD accreditation.

The first BS degree in CE was awarded

in 1873, the first MS degree in Engineering in 1896, and the first PhD in Engineering in 1894. Dean Derleth's philosophy was that every Civil Engineer should be a Structural Engineer; however, Professor Charles Gilman Hyde (the "Father of Sanitary Engineering in the Western US"), hired in 1905, educated a significant number of CE students in Sanitary Engineering in the period from 1905 to his retirement in 1944 (a total of 229).

Continued to page 4

and Mining Bldg. 2. Engineering Laboratory 3. Mechanics Bldg.

In Memoriam: Fred Sauer



Fred Sauer, (ME BS '44, MS '47), longtime supporter and friend of the College of Engineering, died June 1, 2010. Mr. Sauer, along

with his wife Claire (BA '43), endowed the Fred and Claire Sauer Chair of Environmental Engineering, which benefits CEE.

After receiving his master's degree, Mr. Sauer joined the College of Engineering faculty, where he taught mechanical engineering for four years. He then went on to the US Forest Service to study how forested areas would be affected by a nuclear blast. His research is now the national standard for predicting this nuclear effect.

Mr. Sauer then joined Stanford Research International (SRI). After 16 years at SRI, he became the chair of the field test department of Physics International Corporation of San Leandro, CA, from which he retired in 1985. He went to Titan Research & Technology for five years, retiring again in 1990. As a consultant for Titan, he authored a history of nuclear airblast experimentation for the US Defense Special Weapons Agency, which bestowed on him a Lifetime Achievement Award in 1998.

"Fred Sauer left a deep and lasting legacy in the field of engineering. He was a generous friend of Berkeley engineering, and he will be greatly missed," says Lisa Alvarez-Cohen, current holder of the Fred and Claire Sauer Chair of Environmental Engineering.

Faculty Retirements



Robert Bea, professor in the Civil and Environmental Engineering Department, retired in July 2011.

Bob was appointed to the faculty in 1989 after a successful career in industry. He received his PhD in 2001 from the University of Western Australia. A forthright and inspiring

teacher of students at all levels, Bob taught subjects ranging from basic mechanics to design of engineered systems, risk analysis, and human and organizational factors. CEE students recognized Bob's contributions to undergraduate education by nominating him as one Berkeley's "unsung heroes".

With a distinguished international reputation for research and applications on engineering design, operation and decommissioning of offshore and marine structures, Bob turned his focus to the human and organizational factors that affect the reliability of systems. The US Senate awarded him a certificate of recognition for his efforts in aiding the recovery of New Orleans and Louisiana. He also received the (UC Berkeley) Chancellor's Award for Research in the Public Interest.

Bob was inducted into the hall of fame of Risk and Reliability Engineering in the Offshore Energy Center and received the Blakely Smith Medal of Lifetime Achievements in Ocean Engineering. He was named a Fellow of the American Society of Mechanical Engineers, and in 1989, he was elected to the National Academy of Engineers.



Adib Kanafani, professor, former Chair of the Civil and Environmental Engineering Department, and former director of the Institute of Transportation Studies, retired in December 2010.

Adib, the Edward G. Cahill & John R. Cahill Professor of Civil Engineering, received his bachelor's degree in civil

engineering from the American University of Beirut. He received his MS and PhD in civil engineering at UC Berkeley.

He joined the CEE faculty in 1970. An active and enthusiastic teacher and mentor for 41 years, Adib taught planning and aviation and incorporated microeconomics, systems analysis and optimization into his transportation engineering classes. From 1997-2002, he served as department chair.

Adib is widely recognized as an international leader in air transportation systems, transportation economics, and long-distance transportation.

Adib was elected to the National Academy of Engineering in 2002. In 2008, the National Research Council named him a lifetime National Associate of the national Research Council of the National Academies for his "extraordinary service to the Council in its role as advisor to the nation in matters of science, engineering, and health." Adib was named Chair of the Transportation Research Board Executive Committee in 2009.

Although retired, Adib will continue to advise PhD students, be engaged with research, and serve on several department committees.

Civil and Environmental Engineering at Berkeley: The First 75 Years continued from page 3

They called themselves "Professor Hyde's Boys." The Division of Civil Engineering within the COE briefly became the Division of Civil Engineering and Irrigation from 1951-1958, and then was renamed the Department of Civil Engineering from 1958-1995. Finally, in recognition of significant evolution of subdisciplines within the department and the field, the department was renamed Civil and Environmental Engineering in 1995.

Over its illustrious 139 years, CEE has graduated many students who went on to assume top leadership roles in engineering practice; public works at the federal, state, and local levels; water, power and gas utilities; in entrepreneurial businesses; academia, and professional organizations. A few well-known examples from our earlier years include: Robert Gordon Sproul (CE '12), President of the University of California; John Bonner (CE '37) and Barton Shackelford (CE '41), Presidents of PG&E; William Gianelli (CE '41), Director, California Department of Water Resources and Assistant Secretary of the US Army; Walter Huber (CE '05), Founder and Partner, Huber and Knapick, San Francisco; Louis Oppenheim (CE '38), President, Kaiser Engineers; Edgar Garbarini (CE '33), President, The Bechtel Group, and Richard Hall (CE '38), President, Underground Construction. Through the Class of 1950, this group also includes five presidents of the American Society of Civil Engineers.

Recognizing that there are far too many highly successful graduates to list here, the department is partnering with the Advisory Council to establish an Academy of Distinguished Alumni to honor our graduates. More details of this will be forthcoming in the next few months.

We invite comments and recollections from alumni/ae to enrich our files on the history of the department. Send comments to Holly Halligan at halligan@ce.berkeley.edu or to the Department of Civil and Environmental Engineering, 760 Davis Hall, University of California, Berkeley, CA 94720-1710.

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Special Faculty Awards

Armen Der Kiureghian Elected to NAE



Armen Der Kiureghian,

Taisei Professor of Engineering, was among the 68 new members elected to the National Academy of Engineering (NAE). He was nominated for his contributions to risk and reliability and earthquake engineering to advance the practice of

civil and structural engineering.

Armen is one of the world's leading scholars on structural reliability and stochastic structural dynamics. His research has had a major impact on the international research community.

Armen's research encompasses the leading topics in developing rational models for understanding and designing engineering systems in a risk-based context. This is particularly challenging because of the low-probability, high-consequence events that affect civil engineering systems, such as severe earthquakes.

Election to the NAE is among the highest professional distinctions accorded to an engineer.

David Jenkins Receives Global Water Award and Pohland Medal



David Jenkins received the International Water Association Global Water Award for his outstanding lifetime achievement at the global level for creating new directions and pathways in water science, technology and management. He was also awarded

the 2010 Frederick George

Pohland Medal from the Association of Environmental Engineering and Science Professors Foundation (AEESP). The Pohland Medal honors an individual who has made sustained and outstanding efforts to bridge environmental engineering research, practice, and education.

The author of over 250 scientific publications and reports, Professor Jenkins' professional activity has focused on wastewater treatment, especially the activated sludge process. He is widely recognized for his close involvement with wastewater treatment plant operators and managers in order to understand the critical operational problems facing their plants and then successfully applying these solutions at full scale. In addition, Professor Jenkins is one of the pioneers of cost-effective biological nutrient removal processes. Through this kind of engagement, he is credited with helping hundreds of cities, industries and government agencies throughout the US and the world.

Alex Bayen Receives PECASE Award



Alexandre Bayen was selected by President Barack Obama to receive the Presidential Early Career Award for Scientists and Engineers (PECASE). The PECASE award is the government's highest honor to researchers at the outset of their careers. Alex's research focuses

Alex s research focuses on designing and implementing algorithms for use in mobile Internet applications. His algorithms have been used to model air and highway traffic, as well as to measure air and water quality. One of his most recent projects includes Mobile Millennium

most recent projects includes Mobile Millennium, a system that uses GPS-enabled mobile devices to monitor real-time traffic conditions. Another of his projects includes the Floating Sensor Network, which uses cellular technology to enable floating robotics platforms to transmit water quality information about the San Francisco Bay and the Sacramento Delta to computers at the Lawrence Berkeley National Laboratory.

Alex was among 85 researchers selected by the White House for their pursuit of innovative research at the frontiers of science and technology.

Vitelmo Bertero Receives UNAM Doctor Honoris Causa Award

Vitelmo V. Bertero was awarded the Doctor Honoris Causa by the National Autonomous University of Mexico (UNAM) for his many contributions in the field of Earthquake Engineering.

The degree of Doctor Honoris Causa honors individuals for their contributions to teaching, or for their dedication to improving living conditions or welfare of the human race. UNAM was founded in 1551 and is one of the oldest and largest universities in the Americas. In its long history it has conferred very few of these awards.

Professor Emeritus Bertero is recognized worldwide as a legend in the field of earthquake engineering, because of his lifelong efforts to improve concrete and steel construction in seismic regions around the world through his inspired teaching and research. His extensive studies of the nonlinear behavior of structures included the correlation of advanced analytical techniques with actual performance in damaging earthquakes. He became a specialist in defining analytical models for use in conducting seismic performance evaluations. He emphasized the importance of treating the complete structural system in developing a sound seismically resistant design, including consideration of architectural, geotechnical, and construction issues.

In Memoriam: Eugene Herson

Eugene (Gene) Herson (CE BS '65, MS '66), founding chair of the CEE Advisory Council, passed away on June 24, 2011.

In 2006, the department called upon Gene Herson, former adjunct faculty member and a long time CEE supporter, to help form an Advisory Council committed to enhancing CEE at Berkeley. Gene brought together engineers, business and academic leaders, and policy officials who understood the role of an engineering education for addressing societal problems.

Gene was president and **CEO of EMCON Associates,** a NASDAQ-listed integrated service contractor providing turn-key solutions to government and industry environmental consulting, engineering, design, and construction. He served as an adjunct faculty member in **CEE's Environmental Engineering** program from 1979 until 1994. He was president of the Commonwealth Club of California, the largest public forum in the US. In 2003, Gene received the College of Engineering's Distinguished **Engineering Alumni Award for** lifetime engineering achievements and public service.

Always an innovator, Gene's activities touched thousands of local engineers, teachers, and children. His tireless efforts to raise public awareness of waste management shaped current thinking about recycling and environmental sustainability.

"Gene will be greatly missed not only for his leadership, but for his intelligence and wit. He remained lifetime friends with his classmates and cherished his relationships with outstanding Cal professors. He was a true Civil and Environmental Engineer," says Lisa Alvarez-Cohen.

Student Teams Compete Full Out

⁶⁶When Cal hosts Mid-Pac in Spring 2012, we will protect our turf?



Fun Facts about **CEE**

CEE ties with Clemson University for the school that has gone to the most National Concrete-Canoe Competition— 18 appearances! Berkeley is the only school to have won backto-back titles twice.

While an undergraduate, CEE Professor Joan Walker was a paddler on *ClassiCAL*, which won the 1992 National Competition.

From the archives: How students misbehaved at the turn of the century (from department faculty meeting minutes circa 1908)

"The constant abuse of the privileges of underclassmen was discussed in detail. Reference was made to promiscuous smoking in the building. And the taking of lights from sockets."

Environmental

At its regional competition, the Environmental team needed to design a water treatment system that would treat runoff solids resulting from a levee breach near a biosolids compost facility. Their system had to treat the water to the point where it was safe enough to release into a nearby sensitive wetland.

The added twist was that they had to construct the system on the day of the competition as if the emergency was happening right then.

Environmental knew that their design had to be simple. Their idea was born while handling various materials in Home Depot. Who knew that PVC pipe was so strong?

Although proud to place second, Environmental plans to win back the trophy when Berkeley hosts the Mid-Pac competition next year.

Seismic

CEE's Seismic Design Team competed in the Earthquake Engineering Research Institute's (EERI) annual undergraduate seismic design competition in San Diego, California. They were joined by twenty-eight universities from around the world. Their objective: to design and an and

design, analyze, and fabricate a balsa wood model of a high-rise structure. The structure was then value-priced and subjected to scaled ground motions on a shake table.

To prepare, the team learned to read acceleration and displacement response spectra for historical earthquakes, to do modal and time-history analysis, and to conduct shake-table testing.

Construction

The Construction Team competed in the annual Associated Schools of Construction student competition, where corporate sponsors give students a real-life construction problem. Students must come up with a solution to the problem within 24 hours and then present it to a panel of corporate judges. As issues are often ones that corporations have already dealt with in the real world, the competition is a true test of students' ability to solve real-world problems.

Berkeley Construction prepared for the competition throughout the school year and ended up sending teams to two competitions, Design/ Build, sponsored by Swinerton, and Determining Project Risk, sponsored by DPR Construction.

Berkeley did not make it to the podium, but the teams learned technical skills required

For more information and photos, visit www.ce.berkeley.edu



in the construction industry as well as presentation and writing skills.

Steel Bridge

After placing first at the Mid-Pacific Regional Competition, Berkeley's Bridge team traveled to the 2011 National Student Steel Bridge Competition at Texas A&M University, College Station, TX.

The team assembled its entry, *Fear The BEARd*, the fastest of all the 48 competing teams. And *Fear The BEARd* was the lightest bridge of all the entries.

But then Cal's Steel Bridge met its nemesis: the lateral load test.

When loaded, Fear The BEARd's lateral deflection exceeded the amount allowed in regulations. Berkeley was disqualified.

Institute of Transportation Engineers

This year alone, Cal ITE and the ITE Board collectively received nine awards totally over \$ 11,000, with which they proudly demonstrate their great promise to both the transportation and the Cal communities.

In the past, ITE has concentrated on exposing students to the transportation profession through visits to the transportation hubs of Berkeley, Oakland and San Francisco, and even a site visit to the Bay Bridge.

This year, ITE plans to innovate. Having identified the skills that Berkeley students need to enter into the transportation field, ITE will host events tailored to helping students develop those specific skills.

Concrete Canoe

The Concrete Canoe team took its 2011 entry, *CyBear*, to the ASCE National Concrete Canoe competition in Evansville, Indiana. In a tough field of competitors, Cal Canoe brought back seventh place overall, with a second place win in Design Paper and third place in Oral Presentation.

Out of the 100 points possible, only 5.8 points separated Cal Canoe from their longstanding rival, the University of Nevada, Reno, who placed fifth.

For a team with only one returning officer, this was a great accomplishment. Canoe used the opportunity to share stories, tips, and ideas with other schools. Team members plan to implement new construction techniques to cut build time and improve its final product, allowing Berkeley to maintain a strong presence at the national level

Help Wanted!

Remember when you were newly graduated from CEE at Berkeley and saw a "Help Wanted" sign on the door?

Companies were seeking the best and brightest young engineers to solve some of the world's most difficult problems and to create infrastructure to take us into the next century.

Your heart was beating as you pursued this opportunity, and later many others. You were able to successfully take advantage of many opportunities during your professional career because you graduated from the top-ranked CEE program in the nation, where you also learned leadership skills that helped you advance. How fortunate you are!

But times have changed, and there is a new "Help Wanted" sign on the other side of the same door. Yes, our CEE program needs your help this time! With the severe budget cutbacks, a toll is being taken on our cherished department, threatening the specific student programs and activities that develop the teamwork and leadership skills that made you different from graduates of competing universities.

Recognizing an urgent need, the 10-member CEE Advisory Council created the **Civil and Environmental** Engineering Student Leadership Endowment (CEESLE). The Advisory Council seeded the endowment with over \$100,000 in personal contributions with the goal of raising \$500,000 through direct outreach to our dedicated CEE alumni, like you.

The CEESLE will help assure the continued availability of courses in professional leadership and development, student ASCE, canoe and bridge competitions, and other activities that will help our new graduates to compete when the "Help Wanted" sign appears in their future.

Join your fellow CEE alumni by visiting www.ce.berkeley.edu and choose "Make a Gift to CEE." Designate "CEESLE" in the Special Instructions section.

You are welcome to call me to discuss how you can help achieve our goal!

Robert P. Wadell, P.E., F. ASCE

Chair, Endowment Committee CEE Advisory Council 650-348-5010 x202

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Meet Paul Lin, New Advisory Council Member



Paul Y. Lin, former Vice President and Division Manager of Watkins Johnson, a defense and microwave electronics company, joined the CEE Advisory Council in Spring 2011. In addition to acting as operational manager

at Watkins Johnson, Paul developed and taught management courses for technical personnel. Before that, he was a professor at the College of San Mateo, serving as both Department Head of Electronics, and Dean of the Technology Division.

After leaving his academic and industrial career, Paul put together a joint-venture real estate development project with an engineering and architectural university in China, and he served as a management training consultant. He is also the former director of the T.Y. Lin Foundation, a nonprofit organization whose funds were to be used for "charitable, scientific, literary, or educational purposes".

Paul brings with him extensive experience serving on boards that advised on everything from community college curricula to developing leadership and management skills of engineers.

He will begin his Council term by concentrating on getting the word out to Berkeley alumni that Cal needs their help.

"Our alumni need to know that times have changed. Many graduated during a time when the cost of tuition was not a burden. This is no longer true."

Paul and the Lin family have been ardent Berkeley supporters for almost two decades. Former CEE Professor T.Y. Lin and Mrs. Margaret Lin established the T.Y. and Margaret Lin Endowed Chair, in part to recognize that it was UC's offer of a oneyear assistant professorship to T.Y. in 1947 that allowed the family to come to the US.

The T.Y. Lin Foundation also established the T.Y. Lin Graduate Fellowship and the T.Y. Lin Endowed Prize in Architecture and Engineering. Earlier this year, the Foundation increased the size of the fellowship so that it will now fully support a graduate student throughout the course of his or her studies.

"I see how hard today's students work to get the education that I got almost for free, and I want to help," says Paul. Towards that goal, Paul and his wife Lois created the Paul Y. and M. Lois Lin Endowed Scholarship to assist and encourage engineers who participate in civic and community activities. They believe that in order to lead, engineers need to be involved in something more than just technology.

"Berkeley alumni need to give back in the same way Stanford alumni do. I believe that Berkeley alumni will step up once we communicate to them just how much their help is needed."

Scholarships and Fellowships in CEE

Thank you to all who support scholarships and fellowships in CEE! Awards are listed below with their most recent recipient.

GRADUATE

AMEC Geomatrix Fellowship Christopher Markham

Tor Brekke Award Madison Alexander

Albert Brutocao Endowment Hamid Shekaramiz

Buscovich Award Rui Wang

David H. Caldwell Scholarship Caitlin Hewitt, Sarah Price

Roy Carlson, Milos Polivka, & Arthur Ross Fellowship Gabriel Jen

Harmer Davis Memorial Fellowship Long Tran

Joseph A. Dias Scholarship Rudi Schuech, Nasim Mullen

Hans Albert Einstein Memorial Fund Zachary Eichenwald

ENGEO Fellowship Naomi Norris, Kristofer Korth

Engineering & Project Management Fellowship Henri Faucher de Corn

Environmental Engineering (MS) Fellowship Lauren Goodfriend

D. Jackson & Sara-Louise Faustman Fellowship Brian McDonald, Rabia Chaudhry

George P. Forni Memorial Fund Caitlin Hewitt

Fugro West Geotechnical Engineering Scholarship Chris Markham Antonia Fung Memorial Fellowship Alexandra Tsioulou

Geosyntec Fellowship Srinivas Atyam, Kristofer Korth

Ben C. Gerwick Jr. Fellowship Garance Denizot

Harry H. Hilp Scholarship (E&PM) Benjamin Baker, Jenise Torres, Caroline Vaughan, Hamid Shekaramiz

Harry H. Hilp Scholarship (SEMM) Reid Zimmerman, Winslow Wong

E. R. Hoffman CEE Scholarship Rui Wang

Peter Alex Horn Fellowship Brian Coox, Sarah Price, Jonathan Sindler

Robert Horonjeff Memorial Grant Yi Liu, Rui Wang, Xiaochen Gao

Walter H. Howard Scholarship Lauren Goodfriend

Charles G. Hyde Memorial Fund Caitlin Hewitt.

Sarah Price

J. Kleinfelder Graduate Student Fellowship Randy Hildebrandt, Chris Markham

P. Kumar & Shanti Mehta Fellowship for Structural Materials Doanh Do, Winslow Wong

LA County Sanitation Fellowship Caitlin Hewitt

Wilfred F. Langelier Scholarship Courtney King, Marc Muller, Sarah Price, Lucy Croy, Jonathan Sindler

Robert C. Levy Scholarship Rabia Chaudhry, Nasim Mullen Professor T.Y. Lin Fellowship in Structural Engineering Charbel Moubarak, Candice Avanes, Helen Chow, Winslow Wong

John Lysmer Memorial Fellowship Kristofer Korth

James M. McDonald Scholarship No. 4 & No. 7 Caitlin Hewitt

McGauhey Memorial Fund Caitlin Hewitt

Gordon F. Newell Fellowship Dylan Saloner, Eric Gonzales, Akshay Vij, Haotian Liu, Jean Doig Godier, Zhaomiao Guo

A. J. & Catherine Orselli Fund Nasim Mullen, Aine Steiner, Mark Lipoff

PMI-Steven V. White Fellowship Sherry Sung

William H. & Helena I. Popert Scholarship Fund Steven Liu, Reid Zimmerman, Winslow Wong

Egor Paul Popov Endowment Fund Stanley Mak, Winslow Wong, Andrew Wagner

Robert B. Rothschild Jr. Memorial Garance Denizot

Alexander C. Scordelis Fellowship Charbel Moubarak, Winslow Wong, Doanh Do

Harry Bolton Seed Memorial Fellowship Alexandra Tsioulou

Charles Seim CEE Fellowship

Shell Company Foundation Greg Mclaskey

Awtar & Teji Singh Fellowship Swati Verma Russell S. Springer Memorial Fund Rui Wang

Structural Engineering Fellowship Fund Jonathan Pfrommer

David Todd Memorial Fellowship Aine Steiner

Norbert Tracy Memorial Scholarship Aine Steiner

Parker D. Trask Memorial Fund Siobhan O'Reilly-Green

Amos Trussell Fellowship Mi Tra Nguyen

Maybelle & John Tucker Fellowship Zachary Eichenwald, David Wierdsma, Sarah Price, Jonathan Sindler

Women in Engineering Fund Alan Lopes

Li Kuo Wei & Rong Yong Fellowship Xinwei Mao

UNDERGRADUATE

Beaver Heavy Construction Scholarship Taylor Dhalke, Madeline Ziser

DFI Educational Trust & Co. Berkel Award Nathaniel Wagner

Christopher Edwards Memorial Scholarship Thomas Wong

CEE Chevron Scholarship Christopher Boswell, George Chin, Sarah Klug, Lisa Veliz

John C. Shimmick Scholarship Telind Bench, Daniel Berson, Stephanie Carter, Jeremy Law

Ulchi & Yoshito Sunada Scholarship Alex Trahan, Laura Weiden

Robert P. Wadell P.E., F. ASCE Scholarship

What do you do with a Civil Systems Degree? Start a company of course!

That's what CEE Systems students, Anu Sridharan (MS 2010) and Emily Kumpel (PhD candidate, 2012) did, in conjunction with students from Berkeley's School of Information (SIM) (Thejo Kote), Public Policy (Ari Olmos), and Stanford University's Business School (Ashish Jhina).

It started with Emily's research on intermittent water supply in Hubli, India, when she noticed people were waiting hours, sometimes days, for water to arrive.

"They miss weddings, they miss funerals, they miss voting, because they need to wait around the house for the water to turn on," she said.

Emily brought the problem to SIM's interdisciplinary Information and Communication Technologies for Social Enterprise class. Joined by classmates Thejo and Ari, they created a sustainable way to alert people about local piped water delivery via text messages since cell phones are more plentiful

than water in India. Water utility employees call into an interactive voice response system when they open valves to distribute water. Notifications arrive 30-60 minutes in advance of water delivery.

After the class received a grant to continue the project, Anu was brought in, and the pilot program grew into NextDrop, a for-profit social business.





Children wait for water after receiving the text announcing its imminent arrival.

to look at how complex infrastructure problems could be solved in innovative ways through modeling and technology.

Anu, now NextDrop's CEO,

for preparing her to run NextDrop.

"The Systems program got me

"I was able to explore outside the usual CEE disciplines, yet the program ensured that I had the technical skills to solve the problem."

For more information on NextDrop, visit http://nextdrop.org/

Watch Live Testing in CEE Structures Lab!

You can now watch live coverage of tests being conducted in CEE's **Structures and Materials Laboratory** in Davis Hall.

Visit www.ce.berkeley.edu/ research/structures.



Camera One



Camera Two



Bridge team assembles Fear The BEARd for alumni.



Cal ASCE Student-Alumni Barbecue

Cal ASCE hosted a barbecue that drew 100 current students and alumni to the Berkeley campus on a Saturday afternoon. Students, alumni, faculty, and staff mingled on the lawn outside Davis Hall watching exhibitions by the competition teams. ASCE hopes to make the barbecue into an annual event.

Recent CEE Faculty and Student Achievements

FACULTY

Six CEE faculty will participate in the new National Science Foundation Energy Research Center for Re-inventing America's Urban Water Infrastructure. David Sedlak is the center's Deputy Director; Lisa Alvarez-Cohen is Diversity Director; and Ashok Gadgil, Slav Hermanowicz, Arpad Horvath, and Kara Nelson are investigators.

Alexandre Bayen, along with University Paris Dauphine Professors Jean-Pierre Aubin and Patrick Saint-Pierre, published the book *Viability Theory*, *New Directions*. Viability theory designs and develops mathematical and algorithmic methods for investigating the adaptation to viability constraints of evolutions governed by complex systems under uncertainty.

Robert Bea published the Deepwater Horizon Study Group final report and working papers, which are available at www.calmap.gisc.berkeley. edu/dwh_parse.html. In April, Bob was presented with a Certificate of Recognition from the US Senate in appreciation for his help to the people of Louisiana during the recent disasters that occurred in that state.

Jonathan Bray and Michael Riemer were two of the authors of the paper "Shear Strength of Municipal Solid Waste," that was selected to receive Geo-Institute's 2010 Thomas A. Middlebrooks Award.

Ashok Gadgil was awarded the Olympus Lifetime of Education Innovation Award 2011 at the National Collegiate Inventors and Innovators Alliance conference. The Olympus Innovation Award recognizes the work of an outstanding faculty member in invention, innovation, and entrepreneurship education. In addition, Ashok and co-inventor Vikas Garud received the European Patent Office's Non-European Inventor Award 2011 for UV Waterworks, a UV water disinfection device that offers a cost-effective, easyto-use solution for water purification.

Steven Glaser designed the wireless sensors that are being used by a team of UC Merced and UC Berkeley researchers to gather data that will greatly improve ecological measurement and hydrologic forecasting. Steve is the faculty director of the CITRIS Intelligent Water Infrastructure initiative.

Allen Goldstein was elected a Fellow of the American Geophysical Union. To be elected a Fellow of AGU is a special tribute for those who have made exceptional scientific contributions. Only 1% of all AGU members are elected Fellows in any given year.

Sanjay Govindjee co-authored *Engineering Mechanics 3: Dynamics*, an introductory guide to the basic concepts and principles of mechanics. A translation of a popular German text, the book guides students to solve problems in mechanics in a systematic manner. Mark Hansen's research on the true cost of flight delays for passengers was featured in the Washington Post, NPR, and the San Francisco Chronicle. Because of the method used to calculate the costs, this report is the most comprehensive study on the true cost of flight delays published thus far.

Robert Harley and PhD student **Dev Millstein**'s research helped correct pollution estimates in the California's landmark diesel law. Their paper (Millstein and Harley, 2009) was published last year in *Atmospheric Environment*.

Arpad Horvath and **William Nazaroff** are two of the authors of the third-most-downloaded article at *Environmental Science and Technology*. The article is titled "Grand Challenges for Life-Cycle Assessment of Biofuels."

Arpad Horvath served as conference chair for the 6th International Conference of the International Society for Industrial Ecology, the largest industrial ecology meeting ever held.

Stephen Mahin was inducted in the Offshore Technology Conference Hall of Fame, which honors authors of papers that offer innovation, vision, direction, and lasting impact on the design, construction or installation within the offshore industry. Steve co-authored a paper with E.P. Popov and V.A. Zayas titled, "Seismic Behavior in Tubular Steel Offshore Platforms" in 1980.

Jack Moehle was appointed to the T.Y. and Margaret Lin Endowed Chair for a five-year term. Jack was also approved to serve on the Advisory Committee of the Earthquake Hazards Reduction Program, a National Institute of Standards and Technology (NIST) committee that assesses trends and development in the science and engineering of earthquake hazards reduction. He also co-chaired the PEER Tall Buildings Initiative "Guidelines for Performance-Based Seismic Design of Tall Buildings," which won the Award of Excellence in the category Study/Research/ Guidelines at the Structural Engineers Association of Northern California's 2011 Excellence in Structural Engineering Awards program.

William Nazaroff served on an expert committee of the Institute of Medicine that studied the impact of climate change on indoor environmental quality and its consequences for public health. The committee released its finding in "Climate Change, the Indoor Environment, and Health."

Kara Nelson was one of 88 recipients of a \$100K 5-year grant from the Bill and Melinda Gates Foundation for unusual research. She won in the program's new award category: sanitation. Raja Sengupta, along with team members Venkatesan Ekambaram and Kannan Ramchandran, were among the six winners of the US Department of Transportation's Research and Innovative Technology Administration competition seeking ideas for using wireless technology to enable vehicles to communicate with one another.

Nicholas Sitar was appointed to the Edward G. Cahill and John R. Cahill Endowed Chair in Civil and Environmental Engineering for a five-year term.

Joan Walker, along with students David Gaker and Yanding Zheng, were the first winners of the Transportation Research Board's Ryuichi Kitamura Award for the Best Paper by a Student Co-Authored with a Mentor. The title of their paper was, "Experimental Economics in Transportation: A Focus on Social Influences and the Provision of Information."

Robert L. Wiegel was the Honorary Chairman of the First International Conference on Coastal Zone Management of River Deltas and Low Land Coastlines, at Alexandria, Egypt. He was also named Distinguished Diplomate, Coastal Engineering, by the ASCE Academy of Coastal, Ocean, Port & Navigation Engineers. Professor Emeritus Wiegel was also honored by The California Shore and Beach Preservation Association's establishment of an endowed scholarship, the Robert L. Wiegel Scholarship for Coastal Studies and by the ASCE's publication of the 918 pp. volume of "Selected Coastal Engineering Papers of Robert L. Wiegel: Civil Engineering Classics (2011)."

GRADUATE STUDENTS

Nine CEE graduate students received 2010-2011 Outstanding GSI Awards for exceptional commitment to teaching. They are: **Marco Broccardo** (SEMM), **Diego Cobos-Roa** (GEO), **Michael George** (GEO), **Eric Gonzales** (TRAN), **Brian McDonald** (ENV), **Andrea Silverman** (ENV), **Travis Walter** (SYS), **Daniel Wilcoxon** (SEMM), and **Charlotte Wong** (SEMM). Honorable mention went to **Leah Anderson** (SYS), **Helen Chow** (SEMM), **Weihua Gu** (TRAN), **David Leung** (SEMM), **Cristina Poindexter** (ENV), and **Andrew Wagner** (SEMM).

Engineering and Project Management students won four out of eight scholarships awarded by the Northern California Chapter of the Construction Management Association of America (CMAA). Recipients were graduate students **Paz Arroyo, Lynn Hiel**, and **Caroline Vaughan**, and undergraduate student, **Rosa Donaldson**. Four CEE Transportation Engineering students have won Dwight David Eisenhower Transportation Fellowships this year. They are **Tierra Bills**, **Robert Campbell, Vikash Gayah**, and **Julia Griswold**. They were selected for this highly competitive fellowship on the basis of their academic achievements, recommendations, and likelihood for pursuit of a career in transportation.

Tierra Bills, PhD student in Transportation Engineering, won a Leadership Legacy Scholarship for Graduates from Women in Transportation (WTS). This year's award focused on women who demonstrated leadership in bringing ideas, innovation and new approaches to transportation challenges in the US and beyond. Tierra's advisor is Joan Walker.

Iain Clark, PhD student in Environmental Engineering, won a 2010 International Huber Technology Prize in the competition "Water supply and wastewater treatment—New solutions to old problems." Iain's poster was titled, "Bio-electrically Stimulated Microbial Oxyanion Reduction," describing a method of electrochemically fueling microbial reduction of perchlorate, nitrate, and other oxyanions in groundwater. His advisor is Slav Hermanowicz.

Eric Gonzales, PhD student in Transportation Engineering, has been named the 2010-2011 University of California Transportation Center Outstanding Student of the Year. He was also the recipient of the Gordon F. Newell Award within CEE Transportation Engineering. His advisor is Carlos Daganzo.

Jiun-Wei Lai, SEMM PhD student won the 2010 American Institute of Steel Construction (AISC) student photo contest. This year the theme was "Interact. Learn. Build." Jiun-Wei's photos will be published in the November issue of *Modern Steel Construction*.

Siamak Nazari, Geoengineering graduate student, received a grant to attend the 2011 Emerging Leaders Alliance conference. Siamak is one of three selected delegates from the Society of Exploration Geophysicists who will participate in the conference.

Ilse Ruiz-Mercado, PhD candidate in Civil Systems, won the first prize in the student poster competition at the 2010 Joint Conference of the International Societies of Exposure Science and Environmental Epidemiology. Her work quantifying the population patterns of kitchen time-activity using ultrasonic sensors in rural Guatemalan households received the \$500 award for its innovation and methodology.

Will Trono, SEMM PhD candidate, was selected as a recipient of the highly competitive 2010-2011 Edward K. Rice Scholarship from the Post-Tensioning Institute. His advisor is Claudia Ostertag. John Voekel, a student in the Joint Structural Engineering and Architecture masters program won the seekingShade Student Design Competition, which challenged participants to conceive a shade structure for the forthcoming pedestrian bridge at the US Land Port of Entry in San Ysidro,

UNDERGRADUATE STUDENTS

CEE senior **Alex Trahan** received the 2011 Arthur N.L. Chiu National Chi Epsilon Scholarship in recognition of his outstanding academic work and his enthusiastic involvement in extracurricular activities, particularly Chi Epsilon.

Andy Chou, Edmund Tam, and Xia Xiao

(CEE), and Kevin Leung (IEOR), from CEE's capstone design class, *Transportation Facility Design*, took first place at the National FAA Design Competition for Universities for Airport Management and Planning Challenge. Their design, "Collaborative Gate Allocation," allowed for more effective utilization of all available gates across airlines to minimize delays.

Matthew Zahr, CEE senior, was a finalist for this year's University Medal, the annual award bestowed on Berkeley's top graduating senior since 1871. Tarek Zohdi, professor and vice chair for instruction of mechanical engineering, described Zahr as "probably the best [undergraduate] that I will ever encounter in my lifetime."

ALUMNI

Anu Sridharan (CEE MS, '10), Systems Engineering alumna was invited to participate in the Clinton Global Initiative University 2011. Anu will be part of a four person panel that will discuss, "The Urban Planet: Solutions for a Crowded World." The other panelists are Gavin Newsom, Lieutenant Governor of California; Nan Shi, Secretary General, Urban Planning Society of China; and Van Jones, Distinguished Visiting Fellow at Princeton University.

Andy Fennell of Scientific Construction Laboratories Inc., and Kevin Moore of Certus Consulting Inc., won the 2011 Award of Excellence of from the Structural Engineers Association of Northern California in the Category of Study/ Research/Guidelines for their project, "Laboratory Testing of Anchor Bolts Connecting Wood Sill Plates to Concrete with Minimum Edge Distances."

Nikolas Vokhshoori (CEE BS '08), placed first in the Water Environment Federation Wastewater Challenge. He also earned first place in the environmental design competition at ASCE's Pacific Southwest Conference.

For more information on these achievements, and the achievements of others, visit News & Events on the CEE Web site, **www.ce.berkeley.edu**.

CEE Welcomes New Staff



Julia Flinker is the new Human Resources Analyst in CEE. She coordinates all academic personnel cases and leaves, acts as administrator for faculty searches and awards, and

serves as the department's benefits counselor.

Julia has a BA in Art History from Sonoma State University. She has been a member of Berkeley staff since 2008, coming from the School of Law where she served as their Academic Appointments Analyst. She has over 10 years of HR experience, beginning as the Benefits Coordinator for the J. Paul Getty Trust in Los Angeles.

Julia finds academic personnel (AP) challenging and rewarding. She looks forward to supporting the department in navigating changes to AP policy and process and hopes to demystify faculty advancements through the new online APBears system.



Jenna Tower is CEE's Admissions Assistant. She oversees the annual processing of over a thousand applications for admission to CEE's seven graduate

programs while at the same time fielding hundreds of inquiries from domestic and international applicants. Jenna also coordinates textbook orders for the department as well as manages the course evaluation process.

Jenna has a BA in Anthropology from UC Berkeley. Upon graduating in 2006, she worked in the admissions office in Berkeley's Graduate School of Education.

Jenna is an enthusiastic promoter of CEE's highly ranked graduate and undergraduate programs. Last year the admissions process was the smoothest it has ever been despite the fact that the department received a record number of applications.



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"Our ideas and innovations will die in vain if we don't get

www.ce.berkeley.edu

Editor: Holly Halligan (halligan@ce.berkeley.edu). Rerkeley. Environmental Engineering Department at the University of California,

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Address

A First: CEE Student Delivers

Commencement

Alan tried out for speaker because he wanted to speak for three important and engineers. He wished to affirm the

validity of all students' expression and to

urge his classmates to break away from

things work while others cut the ribbon.

"Every year CEE students come up with unique, efficient solutions to a

the engineering stereotype of making

CEE student ever to be selected as the College of Engineering's Commencement Speaker. groups: the average student, Asians,

the next big gadget," says Alan Uy. But despite being a self-described average student, Alan set a record this year when he became the first

"I am just an average student. I'm not in

any of the honor societies or researching

us back? It's not enough to be an politics, education, and social reform," says Alan.

engineer. Our ideas and innovations will Alan credits the Pilipino community and his mother for providing him with continuous support. When Alan's father

died two years ago at the height of the

financial crisis, his mother came out of

retirement to support the family. Alan

not. Education is the only legacy I can

my parents that their legacy will live on."

give to you."

involved with politics, education, and social reform." - ALAN UY

burden by taking a light course load and

working, but his mother said, "Absolutely

Alan says, "When I speak, I am saying to

offered to carry part of the financial

variety of problems. So what is holding die in vain if we don't get involved with



Fall 2011