

engineering

summer 2008

SAN JOSE STATE UNIVERSITY

Charles W.

Davidson

COLLEGE OF
ENGINEERING

San José State University



Dr. Emily Allen, chair of the Chemical & Materials Engineering department, offers her congratulations to SETHA YIM, who received her M.S. in materials engineering. Over 600 students graduated with their bachelor's or master's degree in engineering on Friday, May 23, 2008.

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Omid Kordestani's \$3M Endowment

AT LEAST TWO things stand out in Omid Kordestani's recollections of his undergraduate days at SJSU: first, he loved the fact that many different disciplines of knowledge were so easily accessible to students desiring to learn as much as possible. The art, music, engineering, and science buildings are all nestled together on SJSU's urban campus. You can even hear music floating out of the windows of Concert Hall as you pass by on your way to the Engineering building.

Second, while studying electrical engineering, Kordestani was inspired by two engineering professors, Michael O'Flynn and Art Davis. O'Flynn was full of passion, Kordestani recalls, and Davis was all about precision.

After graduating from SJSU, earning an MBA at Stanford, and becoming the sales and marketing leader at Google, Kordestani, senior vice president of global sales and business development at Google, has returned to his alma mater to help inspire the next generation of engineers.

SJSU's Davidson College of Engineering has received a \$3 million gift from Kordestani, which will establish the

Kordestani Endowed Chair, supporting faculty teaching in multidisciplinary programs, a priority Kordestani and the college both share.

"I applaud the emphasis the Davidson College of Engineering places on passionate teachers who inspire and motivate their students to think beyond conventional boundaries,"



Kordestani said. "In the 21st century, engineering education must prepare students to tackle complex problems on a global scale. This education must be interdisciplinary, not only connecting different engineering disciplines, but also integrating subjects from the sciences, business and social sciences."

CONTINUED ON BACK



dean's MESSAGE

We continue to build on the strong momentum we started in 2006 in realizing the college's top three strategic priorities in the Engineering the Vision Initiative: student success, faculty excellence, and cutting-edge programs.

Charles Davidson's \$15 million gift has enabled us to develop a new freshman engineering program and establish the Engineering Student Success Center. Donald Beall's endowment of the deanship supports the college's green engineering initiatives, including faculty projects such as Dr. Yasser Dessouky's research on the carbon footprint of the electronics industry and Dr. Jinny Rhee's hybrid solar and thermal collectors. Omid Kordestani's endowed chair allows the college to hire a new professor in bioengineering, an interdisciplinary field that utilizes solutions in engineering to address critical problems in biology. Finally, Don and the late Dean Newnan's support has enabled the college to reward and support our top faculty.

The new programs have made a positive difference in our students' learning experience, as evidenced by a 24% increase in the college's freshman enrollment in 2007-08. In addition, the average grade in the freshman engineering project course went from a B to a B+. The increase in enrollment and higher student achievement testify to the commitment and support of the college by its alumni, friends, and industry partners.

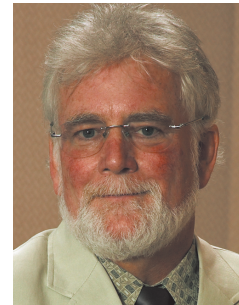
We look forward to working with all of you in creating a stimulating learning environment for all members of our learning community.

Sincerely,
Belle Wei
Don Beall Dean of Engineering
Charles W. Davidson College of Engineering

in memoriam

On Thursday, January 17, 2008, **Dr. Kevin Corker**, professor and former associate dean of research, died in his home.

Kevin was a faculty member at SJSU since 1999 in the department of Industrial and Systems Engineering. He was the director of HAIL (Human Automation Integration Laboratory) as well as director of the Human Factors and Systems Engineering graduate program. His scholarship in human factors was recognized internationally.



An esteemed scholar, Kevin was also an inspiring teacher. In April 2007, he was given the Don Newnan Excellence in Teaching Award for his work with graduate and undergraduate students. In 2004, he was awarded the College of Engineering Faculty Award for Excellence in Scholarship.

Kevin's commitment to excellence is evident by the way he lived his life. He was a man of wisdom, strength, and integrity. We miss him deeply.

kudos!

Dr. Belle Wei, Don Beall Dean of Engineering, has been honored with the Outstanding Alumnus Award in Electrical Engineering by U.C. Berkeley. An alumna of Cal, Wei received her B.S. and Ph.D. in E.E. The award recognizes achievements in research and engineering, professional leadership, and service to the university.

Good News Comes in Threes!

Alumni, faculty and student awards

The Tower Award

Donald Beall, retired chairman and CEO of Rockwell, has been named the 2008 SJSU Tower Awardee. The Tower Award is given to individuals who exemplify excellence in their life and work. It is the highest university honor.

In President Kassing's announcement of the award, he remarked upon Beall's vision and leadership:

"Don has been a passionate advocate of San José State University for over a decade. His most recent gift of \$4 million to establish the first endowed deanship at the Charles W. Davidson College of Engineering is a testament to his commitment to education. As a result of his generosity, Dr. Belle Wei, dean of the college, has been named the first Don Beall Dean of Engineering. Don believes in empowering people and by giving this endowment, he is ensuring that Belle Wei and future deans have discretionary funds to address the challenges of educating future generations of professionals."

Beall will be honored at the annual Tower Awards Banquet on Thursday, October 23.

Outstanding Lecturer Award

Dr. Jeanne Linsdell, director of technical communications in the Davidson College of Engineering, is the recipient of the San José State University Outstanding Lecturer Award for 2007–2008. In his commendation of her, President Don Kassing noted that "she loves what she does and is worthy of this honor."

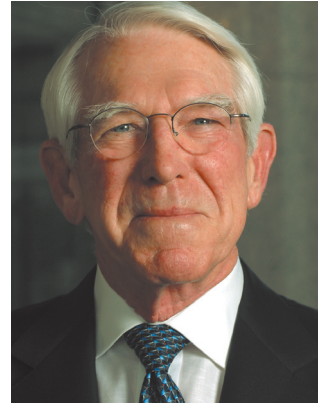
Under Linsdell's leadership, the college's technical writing courses have been designed with engineering graduate students in mind, many of whom are international ESL students. Among her many accomplishments, Linsdell has developed the Writing Program, which includes creating lab materials and exit exams. She also maintains the program's certification and coordinates the program's three writing courses: ENGR 200W, 100W, and 90W. In summer 2008, Linsdell will be a Fulbright Scholar at Petro Mohyla State University, Ukraine, teaching technical writing and engineering communication.

"I have never had a lecturer quite like Dr. Linsdell. She was my professor for Engineering 100W, a course that focuses on two areas: technical writing for engineers and the environmental aspects of engineering. For a class that would seem to be relatively straightforward and unexciting, Dr. Linsdell brought it to life with personal examples and stories of her travels around the world as an engineer." —ENGR 100W Student

Outstanding Graduating Senior

Sharin Shafian was named SJSU 2008 Outstanding Graduating Senior. Graduating in mechanical engineering, Sharin was president and co-founder of the SJSU chapter of Engineers Without Borders; president of Tau Beta Pi Engineering Honor Society; vice president of Pi Tau Sigma Mechanical Engineering Honor Society; and vice president of the Ballroom Dance Club.

While maintaining an overall 3.86 GPA, Sharin worked part time at Synaptics, Inc. as a product test engineer. Among the many community projects in which she participated, she served as a volunteer for SJSU's Day of Service, FIRST Robotics Silicon Valley, and Rebuilding Together Silicon Valley. Sharin received the SJSU 2007 Louie Barozzi Award for academic excellence and community service and the Scott T. Axline Memorial Student Award for Excellence in Service in 2008 from the CoE.



Please join the college in congratulating the following students, faculty, and staff for their achievements in 2007–08.

**APPLIED MATERIALS FACULTY AWARD
FOR EXCELLENCE IN TEACHING**

Dr. Haluk Ozemek

**DAVIDSON COLLEGE OF ENGINEERING FACULTY AWARD
FOR EXCELLENCE IN RESEARCH**

Dr. Kurt McMullin

**MCCOY FAMILY FACULTY AWARD
FOR EXCELLENCE IN SERVICE**

Dr. Lee Chang

**NEWMAN BROTHERS FACULTY EXCELLENCE AWARD
IN THE COE**

Dr. Emily Allen

ONSLOW RUDOLPH STAFF EXCELLENCE IN SERVICE AWARD

Lilly Wilderman

**SCOTT T. AXLINE MEMORIAL STUDENT AWARD
FOR EXCELLENCE IN SERVICE**

John Orozco and Sharin Shafian

**LOCKHEED MARTIN STUDENT AWARD FOR ACADEMIC
PERFORMANCE FOR AN UNDERGRADUATE STUDENT**

Philip Boutelle

**DONALD BEALL–ROCKWELL AWARD
FOR STUDENT ENGINEERING ACCOMPLISHMENT**

Pradeep Senanayake

**DAVIDSON COLLEGE OF ENGINEERING STUDENT AWARD
FOR ACADEMIC PERFORMANCE FOR A GRADUATE STUDENT**

Vikram Arora

To view photos of the 2008 Awards Banquet go to www.engr.sjsu.edu/about/gallery/261

2008 CoE Awards Banquet Alumni Honorees

IN APRIL, THE Davidson College of Engineering hosted its annual Awards Banquet honoring distinguished alumni and outstanding faculty, students, and staff for 2008. Over 500 people attended the Awards Banquet at the Fairmont San José on Wednesday, April 30, filling the Imperial Ballroom.

Dr. Richard Swanson, founder and chief technical officer of SunPower, delivered the keynote address and presented on SunPower's vision for making solar power a mainstream source of energy.

The annual banquet is a time to reflect on the achievements of the college in the past year and to honor individuals who have contributed, in many ways, to the college's vision.

This year's Alumni Award of Distinction winners are **L. Carl Harris** and **Julie A. Sattler**. The award honors professional achievements and service to the community by CoE alumni. Harris is the founder and chairman of the board of Harris & Associates, a civil engineering

firm with office locations in four western states. With annual revenues of \$80 million, Harris & Associates offers civil design, program and construction management services to public agencies throughout the western U.S. The company's motto is "work hard, play hard and have fun." Harris has a B.S. ('63) and an M.S. ('67) in civil engineering from SJSU.

Ms. Sattler is vice president, engineering at Lockheed Martin Space Systems Company and has been with the company for 24 years. Her expertise is in program management, encompassing the entire program life cycle and extensive satellite systems engineering. She was the vice president and program manager of the Advanced EHF, Milstar and Defense Satellite Communications System (DSCS) programs, which are valued at \$4.5 billion. She earned her B.S. ('83) in aeronautical engineering (aeronautical flight operations) from SJSU.



The Newnan Brothers' \$1M Endowment

FACULTY EMERITI OF the CoE and SJSU alumni, Don Newnan and the late Dean Newnan have given the CoE \$1M to establish the Newnan Brothers Excellence in Teaching Endowment to recognize and honor outstanding achievement in teaching by engineering faculty.

“San José State is home for me because I spent so many important years here,” Don Newnan said. “Both my brother and I earned degrees at San José State, and we both taught in the College of Engineering. We understood that one of the driving forces behind San José State is high-quality teachers, and we wanted to ensure that faculty excellence can continue to be encouraged and rewarded in the years to come.”

“The Newnan Brothers Endowment is the first-ever Davidson College of Engineering program to recognize and help retain distinguished faculty members,” said Belle Wei, SJSU’s Don Beall Dean of Engineering. “Both Don and Dean have a unique perspective. As graduates and faculty members of the college, they recognize the essential role and appreciate the dedication of our faculty in impacting our students’ careers and lives. On behalf of the college, I want to convey my gratitude to the Newnan family for their great generosity.”



The 2008 awardees for the Newnan Endowment are as follows: **Dr. Emily Allen**, Newnan Brothers Award for Faculty Excellence in the Davidson College of Engineering; **Dr. Yasser Dessouky**, Don Newnan Excellence in Teaching Award in the Industrial and Systems Engineering department; and **Dr. Stacy Gleixner**, Dean Newnan Excellence in Teaching Award in the Chemical and Materials Engineering department.

The Newnans are native Californians whose parents and grandparents were Santa Clara Valley orchard farmers. Don Newnan earned a B.S. in engineering from San José State. He went on to earn his M.B.A., M.S. and Ph.D. in civil engineering from Stanford University. Don returned to San José State in 1959 to join the industrial and systems engineering faculty, and served as interim dean of engineering in 1978 and 1979. He retired in 1983 as professor emeritus, and subsequently served as president of Engineering Press Inc. in San José and the Tech Publishing Corp. in Las Vegas, where he currently resides.

Dean Newnan began his studies at San José State, then transferred and received a B.S. in chemical engineering from the University of Illinois and a B.S. in chemistry from the University of California, Berkeley. He subsequently returned to San José State and received an M.S. in chemistry. He earned a Ph.D. in chemical engineering from the University of Edinburgh. Dean Newnan returned again to San José State in 1967 to teach both general and chemical engineering. He was on faculty when he died in 1981 at age 59.

Excellence in Teaching

Silicon Valley Leaders Symposium

SINCE FALL 2002, the Davidson College of Engineering has hosted the Silicon Valley Leaders Symposium (SVLS). The main objective of the symposium series is to solidify the link between Silicon Valley industries and the university as well as increase the knowledge sharing between both, including collaborating on industry projects and gaining input about curriculum development and enhancement.

The Spring 2008 speaker schedule included a broad range of presentations. Included in the list of distinguished speakers was **Dr. Peter Norvig**. The director of research at Google, Inc.,



Norvig is a fellow of the Association for the Advancement of Artificial Intelligence and the Association for Computing Machinery. He co-authored *Artificial Intelligence: A Modern Approach*. Earning his B.S. in applied mathematics from Brown University, he holds a Ph.D. in computer science from the University of California, Berkeley.

Norvig's presentation, "Practice Makes Perfect: How Billions of Examples Lead to Better Models," began with a summary of Jorge Luis Borges' "The Library of Babel," a short story which imagines a library that could contain all the books that could ever be written in the universe. Through his example, Norvig explained the limits of information gathering and, therefore, the process by which, realistically, data can be gathered and made accessible to people. Acting as the internet's librarian,

Google's task is to find the right information among billions of choices.

For instance, Google's efforts to increase the capacity and accuracy of finding the most popular image in a search has resulted in the development of algorithms which can "read" the right images, rather than simply depending upon the photo caption or text, which does not always result in an accurate hit. Norvig's presentation demonstrated how Google's "database-look-it-up" approach has made it the leading search engine in the U.S.

Sneak Preview

Fall 2008 Silicon Valley Leaders Symposium*

OCTOBER 16

Dr. Prith Banerjee, Senior Vice President, Research, and Director, HP Labs, Hewlett-Packard

NOVEMBER 6

Dr. Gregory M. Papadopoulos, Chief Technology Officer and Executive Vice President of Research and Development, Sun Microsystems, Inc.

NOVEMBER 13

Dr. Craig R. Barrett, Chairman of the Board, Intel Corporation

NOVEMBER 20

Jon C. Iwata, Senior Vice President Communications, IBM

The symposia take place every Thursday from 12:00pm to 1:00pm in the Engineering building auditorium, ENG 189.

* Speakers and dates are tentative. Please go to www.engr.sjsu.edu/about/svls for the most up-to-date schedule and to download podcasts. For additional information, contact Dr. Ahmed Hambaba, Associate Dean of Graduate & Extended Studies, Davidson CoE: ahmed.hambaba@sjsu.edu.

Climate Clock Project

IN ADDITION TO the new minor in Green Engineering that the CoE is offering to undergraduates, the CoE is a major contributor to other environmentally-focused programs.

Now until mid August, the Climate Clock Project exhibit will be on display in the corridor adjacent to the CoE main lobby. The exhibit features 46 poster proposals designed by collaborative teams of climatologists, scientists, engineers, and artists. One winning proposal will be chosen to develop the first public art Climate Clock in San José.

The Climate Clock's objective is to measure climate data, with the long-term goal of inspiring similar projects globally. By measuring the progress of CO₂ reductions—providing positive reinforcement—the Climate Clock project hopes to collect data as well as study people's energy usage and lifestyle habits with the goal of encouraging the reduction of the world's carbon footprint.

The Climate Clock Global Initiative is a collaboration between FUSE: _ cadre/montalvo artist research residency initiative, 1stACT and the City of San José Public Art program in cooperation with ZERO1.

John Chen of Sybase Receives CSU Honorary Doctorate at CoE Commencement

JOHN CHEN, CEO and president of Sybase, Inc., shared an eastern proverb with the graduating class of 2008: “Take a step back and the sky will open up in front of you.” Chen’s inspiring keynote message to the graduates of the Davidson College of Engineering advised the students to take a reflective step backwards in order to move forward in their careers and their lives. He also encouraged them to develop strong communication skills in order to become effective leaders, as he did when he was beginning his career and which has played an important part in his professional success.

The keynote speaker at the CoE’s Spring 2008 commencement, Chen was also awarded an honorary doctorate of humane letters by the CSU System and SJSU. Dr. Kenneth Fong, CSU Board of Trustee Member, presented the degree and hooded Chen in front of an audience of 4,000, including faculty, graduates, family, and friends. On this special occasion, the Chancellor of the CSU System, Dr. Charles Reed, as well as SJSU President Don W. Kassing were present for the awarding of the citation to Chen.

Honorary degrees are conferred by the Board of Trustees through a highly selective process in order to recognize excellence and extraordinary achievement in significant areas of human endeavor. Since 1998, Chen has served as chairman, chief executive officer and president of Sybase, one of the largest database software companies in the United States.

Named Ernst and Young’s 2007 Entrepreneur of the Year in Northern California, Chen has contributed to the state’s economy by facilitating



**John Chen (L) and
Dr. Kenneth Fong (R)**

commerce between California and Asia. The California-Asia Business Council recently honored Chen with a New Silk Road Award for his leadership in enhancing active business relationships between the U.S. and China.

From Chen’s global perspective, then, he also advised engineering students in his keynote to understand that innovation is not limited to engineering and science. The graduates also need to use innovation to solve medical, environmental, and social problems. Ultimately, as Chen urged, we must “really engage in society; it is our society. We have to put back in what we are taking away; we have to make things better for everybody today as well as tomorrow.”

CONTINUED FROM PAGE ONE :
GOOGLE EXEC'S GIFT IS A "HIT"!

"Omid Kordestani is an exemplary global leader," said Belle Wei, SJSU dean of engineering. "He is innovative and entrepreneurial with a passion for making a positive change in the world. We deeply appreciate his gift to his alma mater."

"Kordestani's gift," Wei added, "will support our 'Engineering the Vision' initiative, which will provide a platform for the college's transformation as it continues to educate and train engineers for the 21st century in Silicon Valley and beyond."

Born in Tehran, Iran, Kordestani moved to San José in 1979. He earned a bachelor's degree in electrical engineering from San José State in 1984 and an MBA from Stanford Graduate School of Business in 1991. As Google's "business founder," Kordestani led the development and implementation of the company's initial business model, which brought the company to profitability in record time. Google generated more than \$16 billion in revenue in 2007.

In Spring 2008, the California State University Board of Trustees formally commended Kordestani for his gift.

For inquiries about the CoE newsletter, please contact Dr. Joy Leighton, Director of Communications, at joy.leighton@sjsu.edu.

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SAN JOSÉ STATE
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India or Bust!



D ID YOU KNOW that in twenty short years India is poised to become one of the top five global economies? And, currently, as the number one country for outsourcing—more than a quarter of India's population is under the age of 28—India is even beginning to outsource some of its outsourcing work!

In this global community, when faraway countries are now your close neighbors, it's wise to get to know and understand your neighbors on their own turf.

This is exactly what 25 SJSU students did in January 2008 for the college's Global Technology Initiative (GTI). Along with three deans and two engineering faculty members, the 25 student scholars visited Chennai, Bangalore, and Delhi. Dr. Raghu Agarwal of the Mechanical and Aerospace Engineering department was the director of GTI 2008.



Global Technology Initiative

The students' two-week study-tour included visits to, for example, industry sites—Cisco, IBM, and Moser Baer; universities—the University of Visvesvaraya College of Engineering and the Indian Institute of Technology Madras; and cultural sites—Mysore Palace, the Taj Mahal, and Kapaleeswarar Temple.

Learning through first-hand experience enhances classroom learning, as both the students and faculty enthusiastically acknowledged after returning from the trip. The study-tour gave them an insightful perspective on a very ancient and rich culture that is now a young economic powerhouse.

To download a copy of the GTI 2008 Yearbook and view photos from the study-tour, go to: www.engr.sjsu.edu/about/news/gti-dinner



**Somnathpur Temple,
Bangalore**

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