

**ENGINEERING 100 STUDENTS ANALYZE PROPOSED LAKE MERCED ART PROJECT**

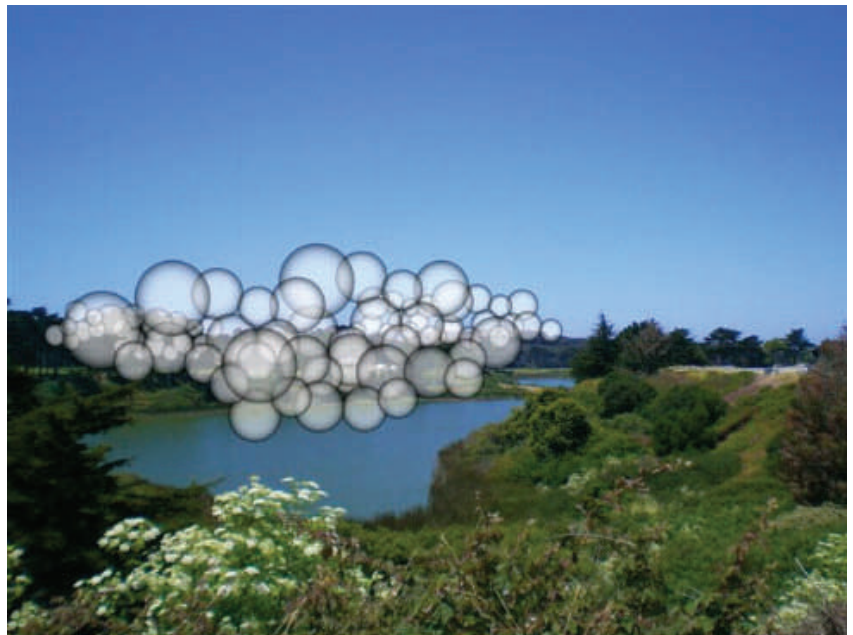
A San Francisco artist's proposal to float a huge mass of thousands of 3 ft. diameter balloons over Lake Merced has become a design assignment for Professor Larry Klingenberg's Engineering 100 class.

The proposal, by John K. Melvin, who is originally from Oakland, is supported by a grant from the San Francisco Arts Commission.

Melvin's initial idea was to collect some 1500 to 2000 helium-filled balloons into an assembly 230 ft. by 426 ft. and 150 ft. thick. This levitating mass would be tethered to stakes driven into the lake bottom. "That's bigger than a football field," Klingenberg said. "It's as big as a city block."

Then artist Melvin discovered that the cost of helium – particularly the considerable quantity that would be required to fill 1500 3 ft. diameter balloons – had risen stratospherically. This cost reality tanked the helium aspect.

So Melvin upped the balloon count and shifted the inflation medium to more affordable plain old air. Air lacks the lift of helium, yet Melvin continues to want to somehow lift them above the lake surface. The "somehow" is the assignment for 110 students of the ENGR 100 class, who have gathered into four-person teams to prepare design solutions. The class final will be presentations of their solutions, some of which will be made before artist Melvin and mem-



*This is artist John K. Melvin's balloon visualization. The massed balloons would hover over an arm of Lake Merced bounded by Skyline and Lake Merced boulevards for about four days sometime next year*

bers of the City's Arts Commission in January 2008, and others which will be videoed in studios at the University's Academic Technology media center.

Known as an "installation artist," Melvin views his role as proposing an idea

*(Continued on page 2)*

**FACULTY— ALUM BBQ**

On September 15, 2007, the San Francisco State University School of Engineering had its annual Alumni barbeque. The School provided an abundance of Mexican food catered by our local Chevys restaurant in Stonestown.

Almost one hundred alumni and their spouses and family as well as the engineering faculty attended

the sunny outdoor event. This year the electrical engineering faculty provided the setup services. Many thanks to all who participated. Many pictures were taken of the event and are available on our website. See selected photos on inside cover.





Randall Museum Wind Generator and Solar Panel

This novel wind turbine was installed at San Francisco's Randall Museum for a June 6, 2005, United Nations World Environment Day exhibit. The location in the Museum's courtyard is awkward, as the Museum building effectively shields the turbine from much of the prevailing Corona Heights wind (the turbine manufacturer, Aerotecture of Chicago, recommends a site 40 ft. above ground and away from trees and buildings.)

The turbine alternator was intended to supply power to the Museum. However, according to Museum staff, integration into the building's electrical system was never completed. Installation of similar wind-power electric generators is now proposed for the tops of some new San Francisco high-rise buildings, making the Randall rotator more than just a spinning curiosity, and worth a look at 199 Museum Way. Note the solar collector on the Museum roof - another World Environment Day remnant.

## CE SENIOR AWARDED SWE SCHOLARSHIP

Tiffany Chin, a 27 year old Civil Engineering student, has been awarded the \$1,000 Elizabeth McLean Memorial Scholarship for 2007-2008 by the national office of the Society of Women Engineers (SWE.)

Chin had been encouraged to apply for the scholarship by Dr. Kwok-Siong Teh, professor of mechanical engineering. Dr. Teh supported Chin's application with letters of recommendation.

Of some \$400,000 in scholarships awarded by SWE to dozens of students across the country, Chin was the only successful applicant from San Francisco State.

A graduate of San Francisco's Lincoln High School in the Sunset District, Chin began college at Cal Poly in San Luis Obispo in 1998, studying architecture.

Called back to San Francisco in 2001 to address family concerns, she enrolled in nearby San Francisco State, changed majors and took a degree in 2004 from the College of Creative Arts in Product Design. Her senior project was an easy-to-install clip-on

device intended to replace snow chains on motor vehicles, inspired by winter trips to Lake Tahoe ski areas.

"Competition for scarce jobs in product design was tough," Chin said. She wound up working for a couple of years for the city tax collector.

Unenthusiastic about a tax office future, Chin returned to SF State last year, aiming for a second degree, this time in Civil Engineering. She hopes to graduate in Spring 2009, after she conquers classes in dynamics, circuits, surveying, differential equations and mechanics of solids.

(Continued from page 1)

and writing a philosophical justification for it (for the philosophy of balloons over Lake Merced, see John K. Melvin's website,) then engaging relevant government bureaucracies and community organizations to secure approvals and financing, finding engineering expertise to design it, and finally hiring a crew to build it.

Among Melvin's previous installation projects were lining the banks of a river running through Pont-Aven in Brittany, France, with fabric scrim, and lining with sheet plastic fabrications a stairway at a Boston, Mass., art school.

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### October On-Campus Job Interviews

Several employers will conduct employment interviews for engineering students

at a campus job fair called "Fall Expo" Friday, October 12, 11 a.m. to 3 p.m.

at the SFSU Main Gym. Among the employers are P.G.&E., Caltrans, and

the City of San Francisco.

Turner Construction, a national and international firm with several major

construction jobs underway in California, will interview civil, mechanical and electrical

engineering students Saturday, October 16, 12:30 - 1:30 p.m. at SCE 256.

On offer at the Friday and Saturday events are both internships and permanent jobs.



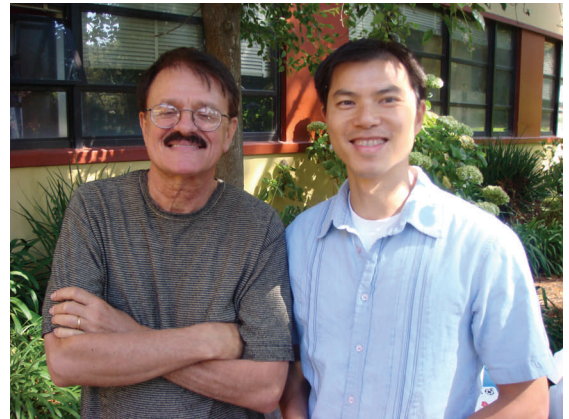
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# Alumni Barbeque Photos



Kwok Teh, Sheldon Axler, Terry Mancilla



Sergio Franco, Franklin Li



Anthony Wheeler,  
Holly Gothard,  
V.V. Krishnan,  
Vivian Liou



Nilgun Ozer with friends



Paul Kwan, ShyShenq Liou, Ming Lat Yin, Ivan Zhau, Cathy Tang



Norm Owen, Bashar Sudah, Mutlu Ozer

## ENGINEERING SUMMER INSTITUTE

Back to the University: Math Engineering Science Achievement (MEP) director Nilgun Ozer and SFSU MEP Program Alumni Dragomir Bogdanic and his wife Priscilla and their children Bianka and Milovan enjoy the barbeque. Dragomir works for CALTRANS, District 4 as a senior transportation engineer.

Dragomir secured the CALTRANS funding for the Engineering Summer Institute which will be held in June 2007 at the San Francisco State University's Science and Technology Theme Community (STTC). Engineering Summer Institute is a residential summer program for historically underrepresented students in engineering and technology. The program is for high school juniors and seniors interested in the engineering and technology fields.

For more information, please contact Nilgun Ozer, 415-338-1328.



$$1 \times 9 + 2 = 11$$

$$12 \times 9 + 3 = 111$$

$$123 \times 9 + 4 = 1111$$

$$1234 \times 9 + 5 = 11111$$

$$12345 \times 9 + 6 = 111111$$

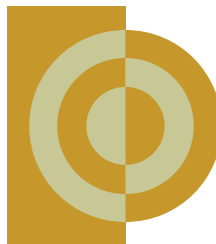
$$123456 \times 9 + 7 = 1111111$$

$$1234567 \times 9 + 8 = 11111111$$

$$12345678 \times 9 + 9 = 111111111$$

$$123456789 \times 9 + 10 = 1111111111$$

Courtesy Dr. Nilgun Ozer



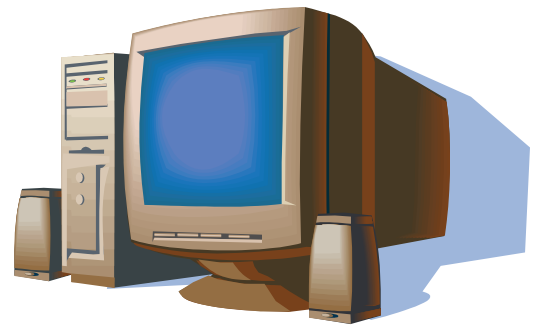
## NEW DIGITAL VLSI DESIGN LABS

### NOW OPEN IN SCI 213A

Dr. Hamid Mahmoodi and Dr. Ying Chen now have available a research laboratory for their classes. The research lab has a Linux server and a future Sun station for students to use VLSI CAD design tools.

The School of Engineering classes 453, Digital IC Design; 848 Digital VLSI Design; 856, Nanoscale Circuits and Systems; and 696/697 Senior Design Projects will be utilizing this lab for their research. In addition, the lab will be used for graduate projects and theses.

Many thanks to Amir Tabrizi, Alan Der, and Don Best for all their hard work in setting up this lab.



### GOT NEWS?

Email your items and/or comments and/or

announcements to

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