

engineeringNews

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PHOTO PROVIDED BY STEEL BRIDGE



NATIONAL CHAMPIONS!

METALLED: The steel bridge team took first place at the National Student Steel Bridge Competition in May (see story at right). Here the team poses with its winning entry. Members, not all pictured here, include: James Ambat, Akshay Banesh, Daniel Berson, Raman Bhatia, Paula Bran, John Carroll, Alice Chen, Helen Chow, Yoseph Gezhagne, Joanna Huey, Jason Jung, Ashley Kita, Nathan Langdon, Tran Le, Justin Legg, Jose Leon, Spencer Lin, Yuichi Maeda, Eric Michal, Ting Ng, Andrew Plumb, Daniel Sales, Alvin Sarmiento, Nathan Scheevel, Matt Vaggione, Andrew Wagner, Richard Wang, Andrea Wong, Hoi Wong, Medford Xie and Madeline Ziser. Davis Hall shop supervisor Richard Parsons (bottom row) poses with the team.

CEE teams #1, #2

A roundup of summer competition results

PHOTO PROVIDED BY CEE DEPARTMENT



FLOATABLE CONCRETE: Cal's Concrete Canoe attracts attention at nationals. The team placed second overall.

It's the size of a theater catwalk and weighs just 142 pounds. But the gently arched bridge — designed, built and ambitiously named “Calatrava”

by CEE students — is the new heavyweight champ of collegiate bridge building. The 21-foot-long span swept a field of 42 finalists to capture top honors at the 2008 National Student Steel Bridge Competition on May 23–24. The name for this year's entry honors noted Spanish architect Santiago Calatrava while demonstrating some “Cal” school pride.

The victory was UC Berkeley's first in the contest's 17-year history. Sponsored by the American Society of Civil Engineers and the American Institute of Steel Construction, the elite competition attracts engineering students from around the country vying to construct the best 1:10 scale

Continued on page 2

POP QUIZ



Did you drive less this summer to save \$\$ on gas?



Aaron Chang, ME senior

“Yes. I did a lot of carpooling. I made other people drive.”



Romy Fain, ME junior

“I didn't really drive less because I have a disability and I have to drive to get around.”



Lucy Williams, Eng. Undeclared freshman

“Yes, but I also drove less because I want to help the environment. And carpooling, biking and walking are more fun and make you feel good.”



Simon Loos, ES freshman

“Yeah, I drove less. Screw the oil companies.”

Competition results

Continued from page 1

model steel bridge. This year's event drew teams from 182 universities to regional contests that culminated in the finals at the University of Florida in Gainesville.

"Everyone was really dedicated to winning," says Raman Bhatia (B.S.'08 CEE), the 22-year-old captain of the 31-member Calatrava team. That's no understatement: Bhatia was one of five graduating Cal seniors who skipped Commencement 2008 in favor of a trip to the finals.

The bridge won first place in the "lightness" and "structural efficiency" categories and finished second in "construction speed" and construction "economy" on its way to seizing the overall title.

Reassembled in Berkeley, Calatrava was painted blue and goes on permanent display in Davis Hall. Visit the team's website: www.ce.berkeley.edu/~steelbridge.

— Visit <http://innovations.coe.berkeley.edu> to read more.

Concrete Canoe: Not only does it float, but it rises, almost, to the top. On June 21, this CEE team took second overall out of 22 finalists at the National Concrete Canoe Competition. (Those CEE teams are hot!) Its canoe, dubbed "VoCal," was named after Berkeley's Free Speech Movement. The team, already regrouped, is plotting how to capture the national title next year.

<http://canoe.berkeley.edu>

Formula SAE: Cal's newest car team gets better and better. It took its formula-style race car to 25th place out of 84 cars at the Formula SAE West competition that began on June 25 — the best it's ever done. "We're aiming for the top 10 next June," says Raechel Tan, one of the team's leaders.

<http://fsae.berkeley.edu>

SMV: Otherwise known as Cal's gas-sipping car. The Supermileage Vehicle team didn't finalize its vehicle in time for the Shell Eco-Marathon Americas Competition last April, but the team was back in the shop by July, discussing plans for a new car.

<http://smv.berkeley.edu>

CalSol: The solar-powered car team withdrew from July's North American Solar Challenge after several of the vehicle's key systems failed, but members plan to redesign those parts this fall in order to compete in next year's World Solar Challenge, a race across Australia. <http://me.berkeley.edu/calsol> ■

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VIEW FROM the TOP

conversations with innovative leaders

Wednesday, September 17, 4-5pm
SIBLEY AUDITORIUM | BECHTEL ENGINEERING CENTER

Sanjay Mehrotra
President & COO

SanDisk



Don't miss a conversation with
SanDisk's co-founder, an EECS alum!

Infosession with
refreshments and
a raffle of SanDisk
prizes to follow



www.coe.berkeley.edu/events/view-from-the-top

< announcements >



Get the complete College calendar at www.coe.berkeley.edu/events.



Northrop infosession

Northrop Grumman Corporation will hold an employment infosession at 5 p.m. on Wednesday, September 10, at the West Madrone Room on the fourth floor of the MLK Jr. Student Union. The global defense and technology company designs and manufactures ships, satellites, aerospace and advanced defense electronics systems, and other products and services.

www.northropgrumman.com



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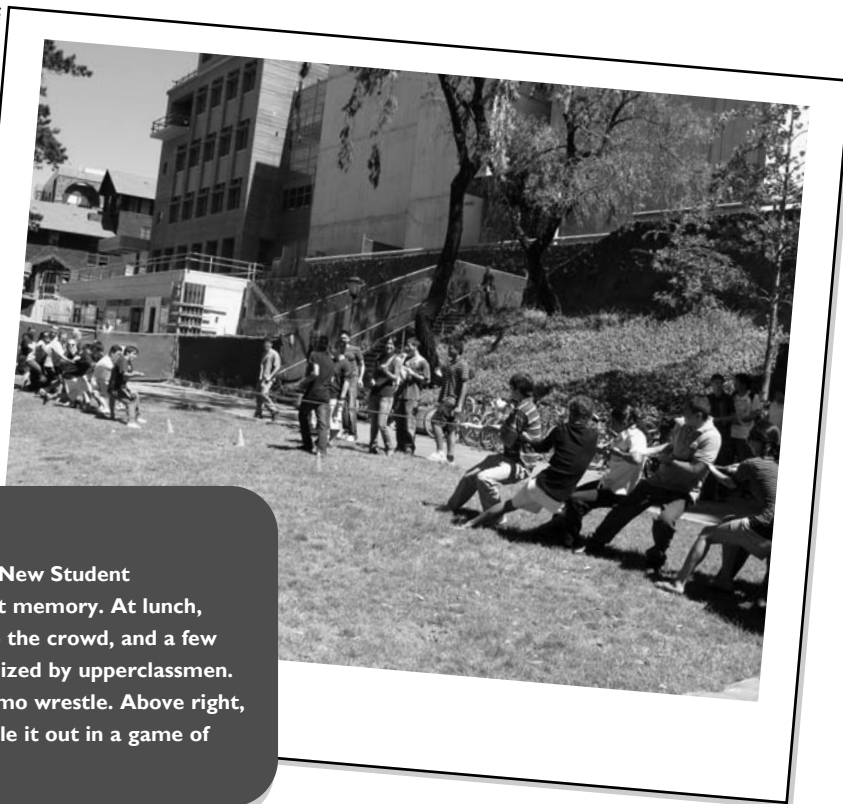
Take a short survey about *Engineering News*, and you'll automatically be entered into a raffle drawing for the gift card. Surveys can be found in the waiting area of 308 McLaughlin Hall or take it online at www.coe.berkeley.edu/news-center/publications/engineering-news. We want to improve this publication to better serve you!

< focal point >

CINDY MANLY-FIELDS PHOTO



MEGAN MANSEL WILLIAMS PHOTO



INTRO TO COE

The College welcomed 849 new faces to campus at New Student Orientation on August 25, the biggest class in recent memory. At lunch, Top Dog served almost 900 of its famous wieners to the crowd, and a few courageous newcomers participated in games organized by upperclassmen. Above left, BioE senior Tim Fei suits up to mock sumo wrestle. Above right, upperclassmen (on the left) and underclassmen battle it out in a game of tug o' war. The underclassmen won.

< of note >

Graduate Student Engineering Club Directory

AST: Students in Applied Science and Technology is led by Mike Greaves, greaves@berkeley.edu.

BioE: The BioEngineering Association of Students is led by Mark Steedman, marcus@berkeley.edu, and Robin Held, robert.held@gmail.com.

CEE: The CEE Graduate Student Society hosts social events and research roundtables. Contact Drew Genter, gentner@berkeley.edu.

CS: Visit the Computer Science Graduate Student Association at www.cs.berkeley.edu/~csgsa or contact president Jake Abernethy, jake@eecs.berkeley.edu.

EE: Visit the Electrical Engineering Graduate Student Association at www-inst.eecs.berkeley.edu/~eegsa or contact president Josh Hug, jhug@eecs.berkeley.edu.

ME: Don't miss the ME Graduate Student Council's happy hours and intramural sports teams. Visit www.me.berkeley.edu/megsco.

MSE: Brittany Nelson-Cheeseman leads the Materials Research Society. E-mail bbnelsonchee@berkeley.edu.

Women: Graduate Women in Engineering unites women in ME, NE, IEOR and BioE for networking. Visit www.me.berkeley.edu/gwe. ■

TECHNOfile: iPhone 3G

EECS junior reviews Apple's newest smart phone

The Apple iPhone 3G debuted in July, promising to be faster than the original. EECS junior Andy Toulouse reviews it for Engineering News. Basic models start at \$199 and can be purchased at an Apple or AT&T retail store.

The original iPhone is quite capable, so when I bought the iPhone 3G this summer, I was curious to see how Apple would improve the user experience. After a couple months, I've found the 3G is indeed faster, but its functionality is identical to that of the original — with incremental improvements.

The original approximated its location based on cell towers, while the new model takes advantage of Assisted GPS technology to locate itself with greater accuracy.

Both include a very capable browser, Safari, though due to the faster 3G network, Safari is noticeably quicker on the 3G.

However, the 3G shares many of the original's flaws. Although making and taking calls are rock-solid on both phones, Safari and OS X iPhone are prone to crashes when overloaded; luckily, they crash relatively gracefully. That's par for the course for Apple: its hardware is solid, but the software takes time to stabilize.

Unlike its online counterpart, Google Maps for the iPhone lacks public transit directions, a necessity in the Bay Area. Following directions is also painfully manual; the map does not advance as you follow its directions, nor does it update to accommodate detours.

A couple other downsides:

There is still no cut and paste, and iTunes wastes too much time backing up the phone.

The keyboard sometimes lags, and if you update applications, their placement on the home screen resets — an annoying glitch.

Due to AirBears' lack of support for 802.1X, logging in to the Wi-Fi is extremely awkward.



ANDY TOULOUSE with the iPhone 3G

On the other hand, text auto-completion is so accurate it can be downright *creepy*. (And, judging from its suggestions, uses machine learning to improve results.) The Facebook application is indispensable. Visual Voicemail greatly streamlines checking messages. And the applications in the App Store are excellent and improving at an incredible pace.

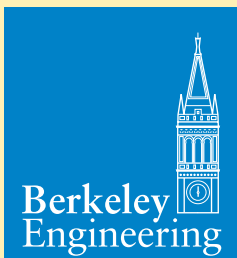
BOTTOM LINE: If you're looking for a full-featured phone and don't mind the occasional frustrations that come with being an early adopter, there are no showstopping bugs here. You won't be disappointed.

On the other hand, if you're looking for complete stability and something that 'just works,' this is not the phone you want — yet. The flaws will be ironed out in time, and a good phone will become a great one.

—Written by Andy Toulouse

TECHNOfile is a new department where students review gadgets, devices and technology and give us the bottom line. Want to be a reviewer? E-mail engnews@coe.berkeley.edu. ■

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