

# ***Welcome CAP Executive Board***



 **UCSD  
Jacobs** | **School of  
Engineering**

*June 14, 2012*

# CAP Leadership 2011 - 2012

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**CAP Chairman:**  
**Anton Monk, Ph.D. UCSD '94**  
**Co-founder & VP Technology**  
**Entropic Communications**



**CAP Vice Chairman:**  
**Rusty Sailors**  
**Chief Project Engineer, Director**  
**BAE Systems**

# Welcome New CAP Members!

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imagination at work



**KAISER PERMANENTE®**



# Welcome Distinguished Students

**Triton Engineering Student Council**

**Women in Computing**

**Engineers for a Sustainable World**





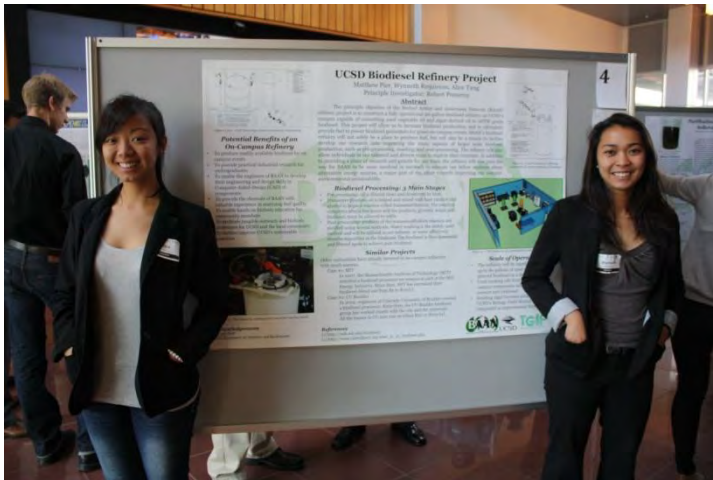
**TESC**  
Triton Engineering Student Council

Congratulations  
**NEW** TESC President 2012-13  
Pooja Makhijani, **BioEng '14**

<http://tesc.ucsd.edu/>

# Highlighted Events

- EUREKA 2012
- Enspire
- Junkyard Derby





# DECaF 2012

- Over 80 Companies attended
- Date for Next Year: February 22<sup>nd</sup> 2013
- Two Ballrooms for 2013



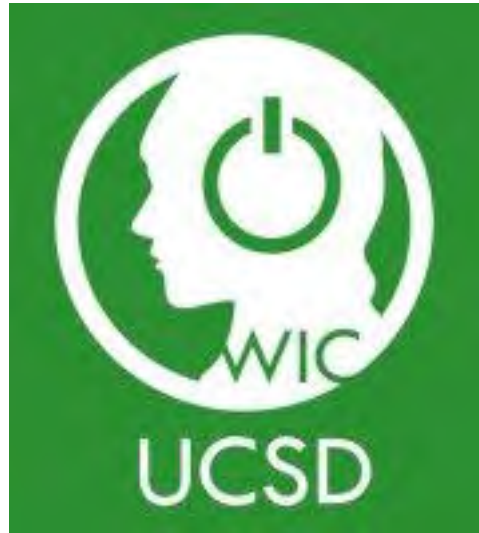
# Goals for 2012-13

- Engineers on the Green
  - Org Collaboration Initiative
  - Opening up resources
  - MOMENTUM
- 
- Creating a  
    **T**hriving  
    **E**ngineering  
    **S**tudent  
    **C**ommunity





# UCSD Women In Computing



Liz Chaddock, CSE '14

Eliah Overbey CSE '15

# Celebration of Women in Computing Conference

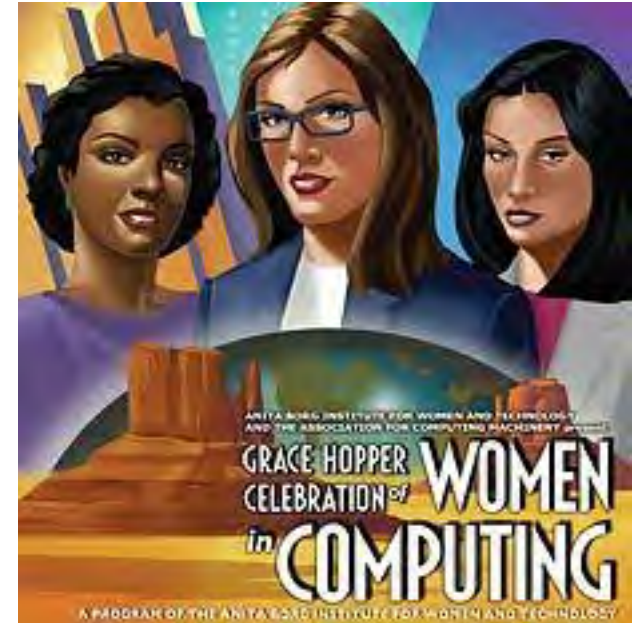
- April 14–15
- Workshops, poster sessions, career panel, career fair, keynote speaker, dance party
- 1/3 of the conference attendees from UCSD



# Grace Hopper Conference 2012

## October 3 - 6

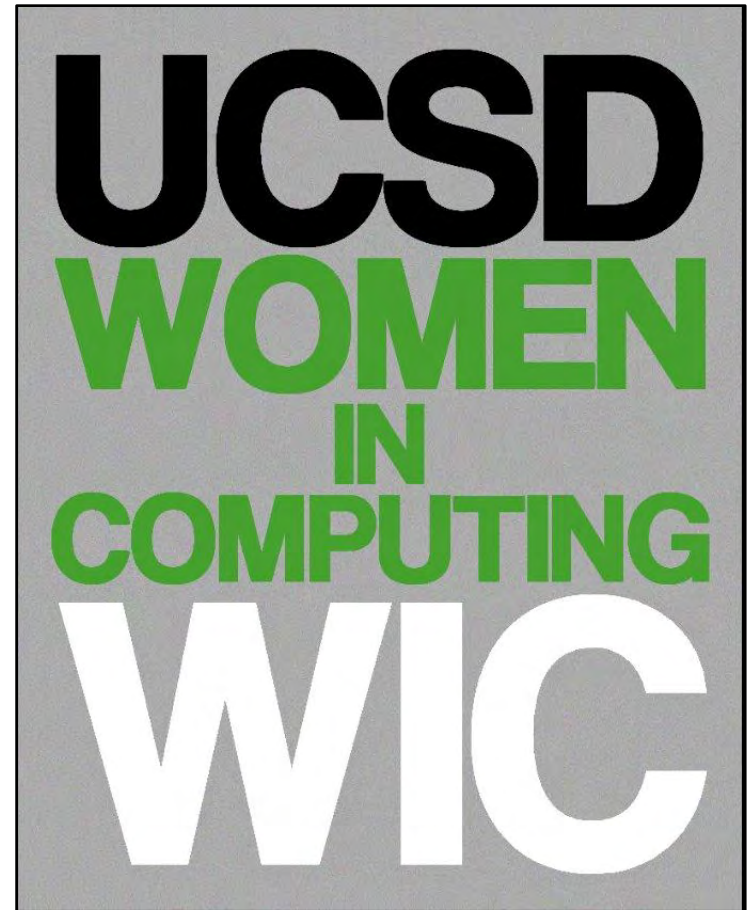
- Goal - Full funding for 15 WIC members: \$16,000
- Thank you to Yahoo, Cisco, and Microsoft for their generous donations amounting to \$12,500!





# Future Events for 2012 - 2013

- Bi-Weekly social events
- Big sister/little sister mentoring program
- C++ and Python workshops
- Web development classes
- WIC hosted programming contest
- Strong WIC presence at Dini Group programming contest
- Technical project teams



# Contact us!



- Eliah Overbey – President  
[eoverbey@ucsd.edu](mailto:eoverbey@ucsd.edu)
- Liz Chaddock – Vice President  
[echaddock@ucsd.edu](mailto:echaddock@ucsd.edu)
- Visit our website at  
[wic.ucsd.edu](http://wic.ucsd.edu)

# Engineers for a Sustainable World

A Student Organization at University of California, San Diego



**Bringing communities together** to develop, implement,  
and share sustainable technologies and practices **worldwide.**

Hien Nguyen, ME '12 | [hien.nguy3n@gmail.com](mailto:hien.nguy3n@gmail.com)





# Engineers for a Sustainable World

esw.ucsd.edu



What we've **accomplished** this year:

- 15 student-run projects
- 55 active members
- 3 huge community-building events



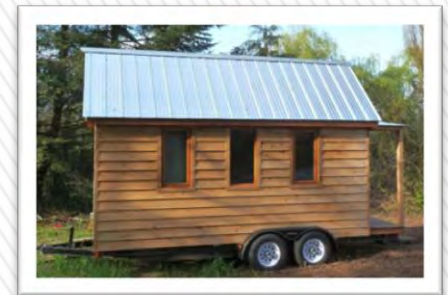
**Water Purification**



**Clinton Global Initiative**



**Preserve Our Planet!  
Campaign**



**Tiny House Project**

# Engineers for a Sustainable World

esw.ucsd.edu



Coming soon...

## 2012-2013



**National Conference  
at UC San Diego!**  
“What’s our Legacy?”



Interested in Joining? [esw.ucsd@gmail.com](mailto:esw.ucsd@gmail.com)

# Dean's Report

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**Dean Frieder Seible**  
**Jacobs School of Engineering**





# Structural and Materials Engineering Building

**Dedication September 14, 2012**





# “Fallen Star” UCSD Stuart Collection

## Becoming an Iconic Symbol of UCSD Campus

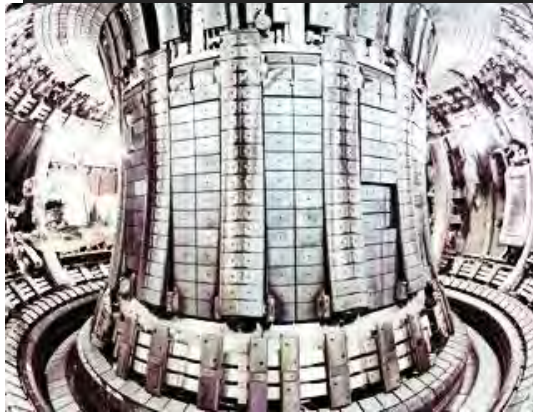








# Academic Year 11-12 Faculty Hiring Plan



## DEPARTMENT

## SPECIALTY

### ENERGY/SUSTAINABILITY

- |                                       |                            |
|---------------------------------------|----------------------------|
| 1. Electrical & Computer Engineering  | Energy/Power               |
| 2. Mechanical & Aerospace Engineering | Energy                     |
| 3. NanoEngineering                    | Materials in Energy        |
| 4. Structural Engineering             | Aviation Safety            |
| 5. Jacobs School-wide                 | Advanced Energy Technology |

### ENGINEERING IN MEDICINE

- |                           |                        |
|---------------------------|------------------------|
| 6. Bioengineering         | BioSystems Engineering |
| 7. Bioengineering/Burnham | Regenerative Medicine  |
| 8. Jacobs School-wide     | Quant/Systems Biology  |

### INFORMATION TECHNOLOGY

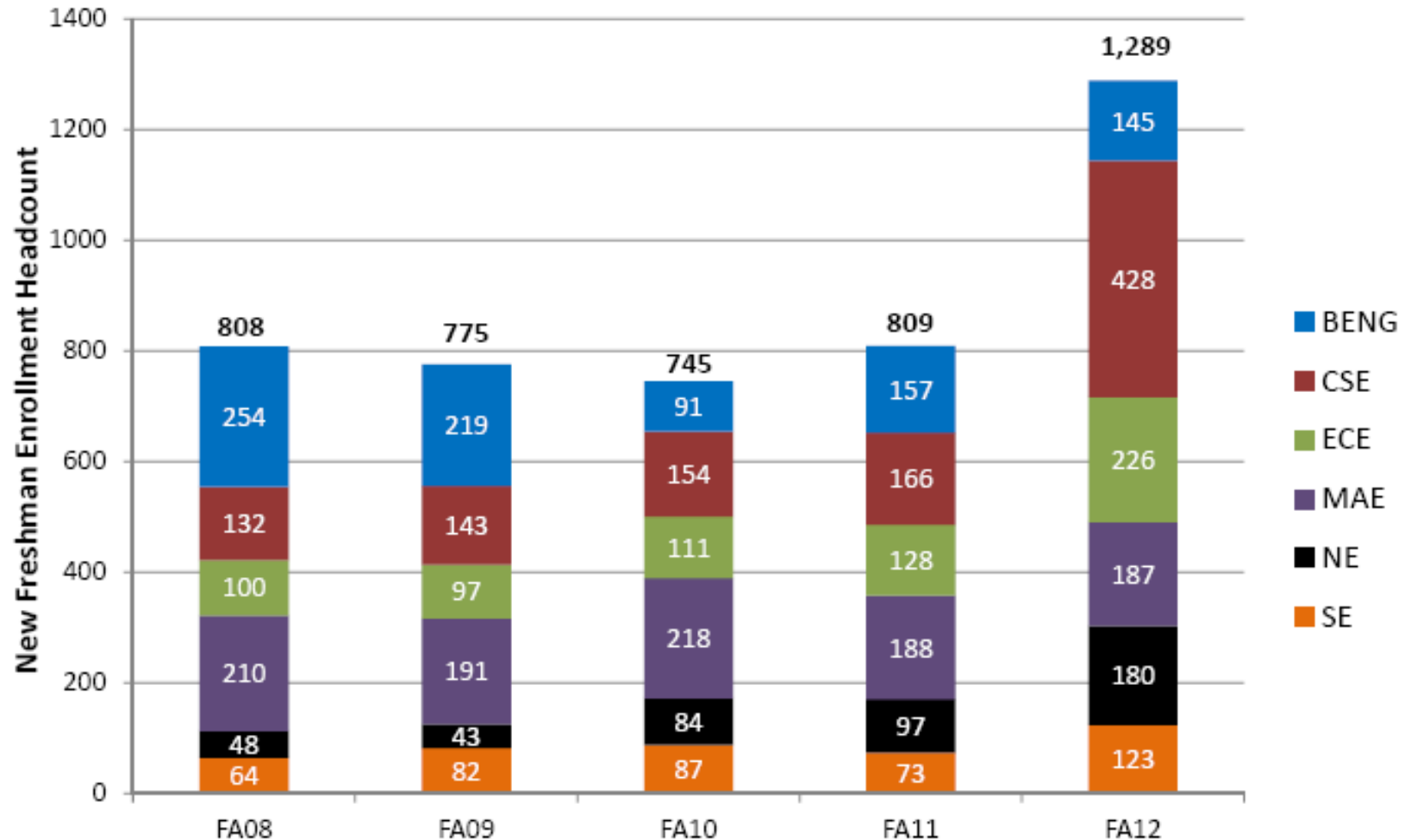
- |                                      |                            |
|--------------------------------------|----------------------------|
| 9. Electrical & Computer Engineering | High Fidelity Info Access  |
| 10. Computer Science & Engineering   | HCI/Computing and Machines |

### OPPORTUNITY

- |                        |                    |
|------------------------|--------------------|
| 11. Jacobs School-wide | Excellence         |
| 12. NanoEngineering    | Teaching Professor |

# Freshman Accepts by Department

Jacobs School New Freshman Enrollment



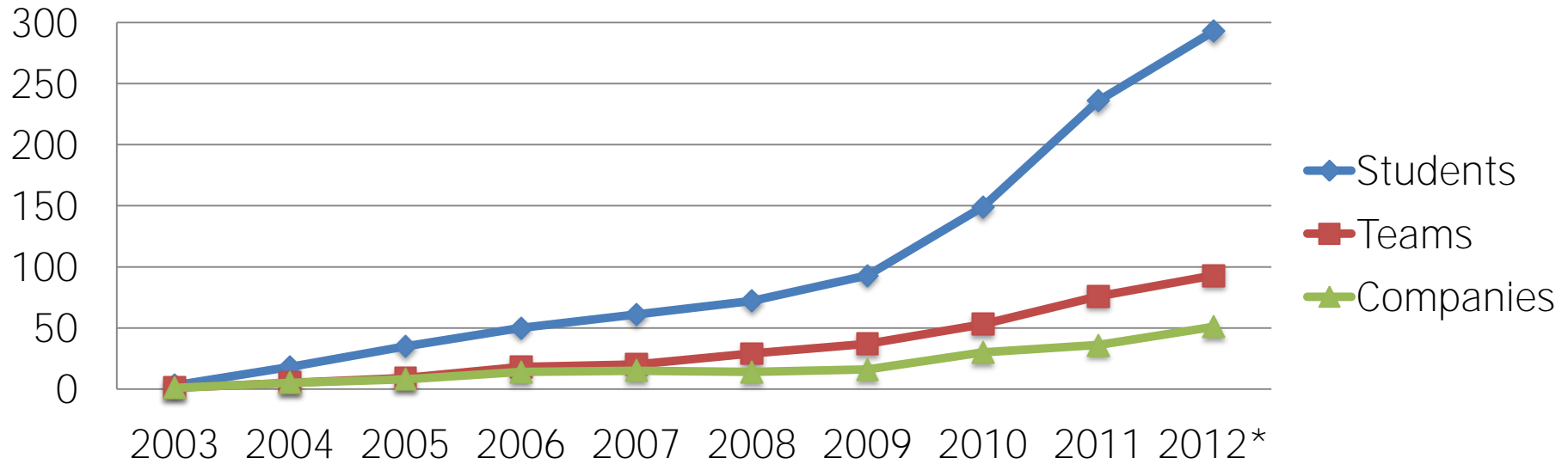
Updated June 11, 2012

# Freshman Admission: Increase in Both Admission and Yield

Fall 2011					Fall 2012						
Dept.		Admit	Accept	Yield		Admit	Accept	Yield		Change	% of 2011
BIOE		753	157	21%		627	145	23%		-12	92%
CSE		802	166	21%		1,339	428	33%		262	258%
ECE		660	128	19%		918	226	25%		98	177%
MAE		947	188	20%		937	187	20%		-1	99%
NE		529	97	18%		755	180	24%		83	186%
SE		300	73	24%		452	123	28%		50	168%
<b>Total</b>		<b>3,991</b>	<b>809</b>	<b>20%</b>		<b>5,028</b>	<b>1,289</b>	<b>26%</b>		<b>480</b>	<b>163%</b>



# Team Internship Program Summer 2012 Preview



Team Internship Program	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012*
Students	3	18	35	50	61	72	93	149	236	293
Teams	1	5	9	18	20	29	37	53	76	93
Companies	1	5	8	14	15	14	16	30	36	51
New sponsors	1	4	5	8	4	3	6	18	21	19
Returning sponsors	3	1	3	6	11	11	10	15	15	32
International teams				1	2	8	0	5	4	3

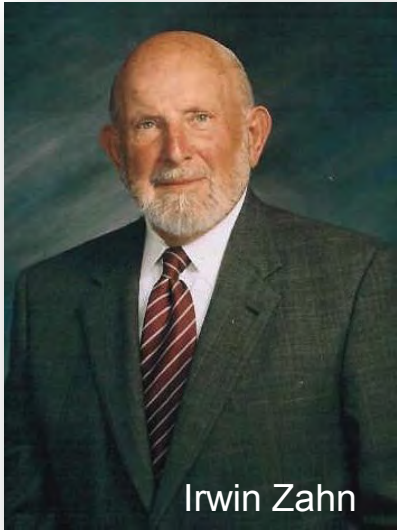
\* in progress

# TIP Sponsors – Summer 2012



# Moxie Foundation Gift Enables

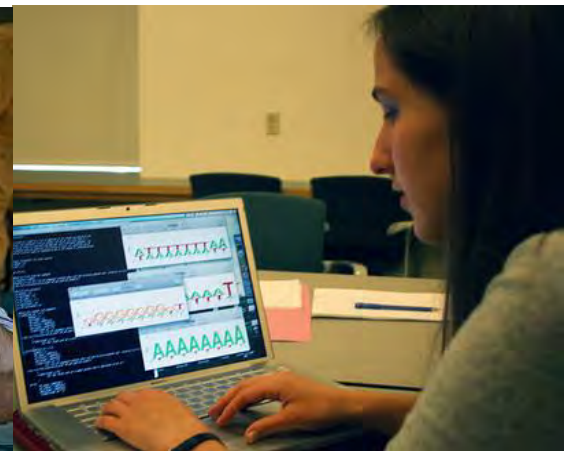
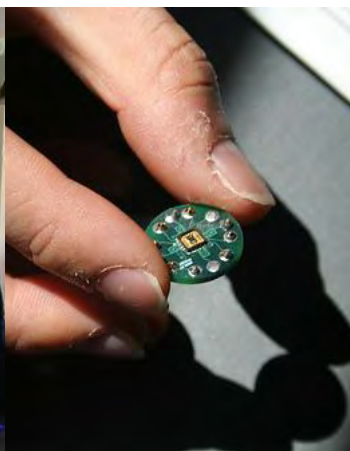
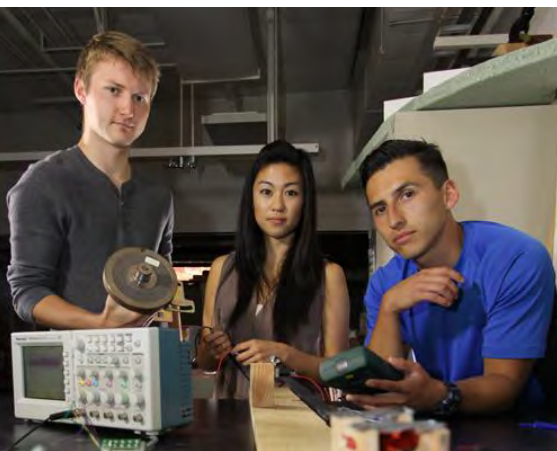
## Incubator to Mentor Undergraduate Inventors



- Product Design and Entrepreneurship Course
- Laboratory Space and Equipment to Develop Prototypes
- Mentoring by Experienced Inventors and Entrepreneurs
- Competitive Awards for Best Ideas



**Got Moxie?**  
(spirit, courage, initiative)





# Englekirk Center Shake Test:

## Protecting Critical Non-Structural Components in Buildings



# Distinguished Faculty Presentation

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**Professor Tara Hutchinson**  
**Structural Engineering**

***Earthquake and Post-Earthquake Fire  
Performance of Nonstructural Components and  
Systems in a Full-Scale Building***



**Anne O'Donnell**  
**Director**  
**Corporate Affiliates Program**  
**Jacobs School of Engineering**



*Congratulations!*



*Nominees*

UNIVERSITY OF CALIFORNIA,  
SAN DIEGO  
ACADEMIC AFFAIRS

**Exemplary Staff  
Employee of the Year  
Nominees**

**Cody Noghera**

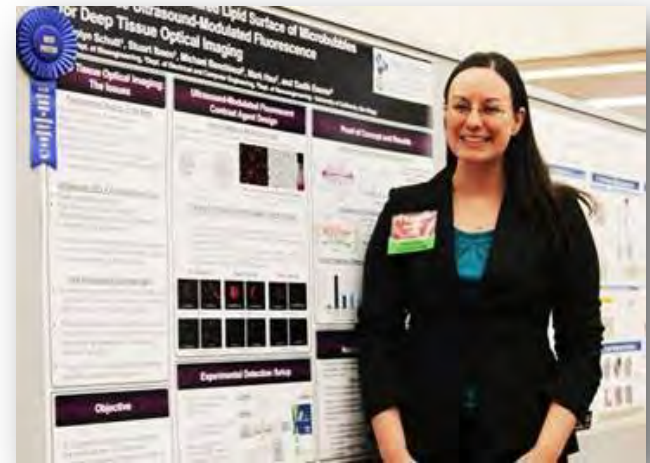
Deputy Director, Corporate Affiliates Program

**Terrance Mayes**

Director, IDEA Student Center

## 2012 Highlights

- ❑ 600 Participants
- ❑ New judging format was well received
- ❑ Thank You Sponsors



**"Best access to research at the Jacobs School"**

# Master of Advanced Study Degree

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**Faye Kurpanek**  
**Director**  
**Executive Education**  
**Jacobs School of Engineering**



# Master of Advanced Study Degree

## Fall 2011 Enrolled

## Fall 2012 Applications



Architecture-Based  
Enterprise Systems  
Engineering

**30 new /  
27 returning**

**35**



Wireless  
Embedded  
Systems

**20**

**80 (30 max enrollment)**



Medical Devices  
Engineering

**6**

**56 (15 max enrollment)**



Simulation-Based  
Engineering

**--**

**41**



Structural Health  
Monitoring

**--**

**32**

# Inclusion, Diversity, Excellence, and Advancement

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**Terrance Mayes**  
**Director**  
**IDEA Student Center**  
**Jacobs School of Engineering**

# IDEA Scholars Program Moving Forward

**2011 22 Freshmen**

**2012 34 Freshmen, 20 Transfer Students**

**Summer PreP 2012: event for Transfer Students**

**IDEA Scholars Breakfast for Prospective Students**

**90% of participants applied to be IDEA Scholars**



communications





# Retention Programs Underway



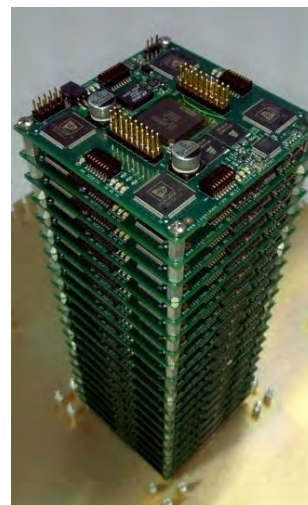
JUMP Peer Mentoring



IDEA Study Lab and Tutoring



Introduction to Engineering Courses



Smart Solar Power  
IDEA Scholars Project

# TIP Training Day on Saturday June 2, 2012

- Day-long training
- Workshops Tracts:
  - Communication Skills
  - Teams & Leadership
  - Professional Development
- New features:
  - Conference Style
  - Industry Speakers
  - Intern Guidebook
- 100+ students attended





# TIP Training Day on Saturday June 2, 2012



Inspiring  
Enthusiasm  
Camaraderie  
Development  
Management  
Personal  
Internship  
Building  
Projects  
Engineering  
Success  
Trust  
Team  
Brand  
Accountability  
Networking  
Presentation  
Professional  
Skills  
Leadership  
Mentoring  
Advanced  
Communication  
Creativity  
Style

*Thank you to our industry speakers and collaborators!*



communications



Gordon Center  
UC San Diego  
Jacobs School  
of Engineering







 **UCSD  
Jacobs** | **School of  
Engineering**  
Team Internship Program





# Junkyard Derby 2012 Re-CAP



Winning Car: Theta Tau



**28 Teams: All Majors, Alumni, Faculty and Staff**  
**Next Year Two Divisions: Including UPHILL Race!**

**Thank you to CAP sponsors :**

**YAHOO!**





# 1<sup>st</sup> Annual Facebook Hack March 2-3, 2012



*“The **fb** team was very impressed by the quality of the students and their hacks as well as how smoothly everything ran.”*

*Adam Ward, Facebook University Recruiting Manager*

- 130 Bright, Innovative Students
- 14 Multi-Disciplinary Teams
- Winners advance to next level of competition





# Dinner with the Deans

## CAP Executives value 'getting involved'





## Dates to Remember in 2012:

June 19	Regional Tech Talk and Alumni Event - Cymer
August 14	Regional Tech Talk and Alumni Event - Facebook
September 10	<i>Spirit of Solar</i> CAP Executive Cruise on San Diego Bay
September 14	Structural and Materials Engineering Building Dedication
September 27	CAP Executive Board Meeting – IN OUR NEW EBU IV!
November 8	Professional Evening with Industry by NSBE, SHPE, SWE, & AISES

# Thank You CAP 2011 - 2012 Executive Champions

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***A CAP 'Champion' is one whose vested interest not only lies with their organization but also the genuine interest of the Students, Faculty, and Research at the Jacobs School.***

***This is a CAP member who participates in several CAP benefits and programs to create opportunities for talent and technology that develops and inspires the human and intellectual capital for the Jacobs School, for their company and for society.***



# Thank you CAP 2011 - 2012 Leadership

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**CAP Chairman:**  
**Anton Monk, Ph.D. UCSD '94**  
**Co-founder & VP Technology**  
**Entropic Communications**



**CAP Vice Chairman:**  
**Rusty Sailors**  
**Chief Project Engineer, Director**  
**BAE Systems**





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