

IDEA STUDENT CENTER

QUARTERLY NEWSLETTER

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Calling All JSOE Alumni:

J.U.M.P. into Alumni Night!



We are seeking participation from Jacobs School alumni in our quarterly JUMP Alumni Night events, which provides our current undergraduate and graduate engineering students the opportunity to receive networking and professional guidance from engineering professionals/alumni. Visit tinyurl.com/ideaJUMP to learn more about the Jacobs Undergraduate Mentoring Program.

Time commitment is limited to attending a 2-hour event in the evening, and invitations are sent out once a quarter. To be included in our invite list for future JUMP Alumni Night events, please provide us with your information at tinyurl.com/JUMPalumniNIGHT.

TESTIMONIALS...

"JUMP provides a great networking opportunity and direct interaction with alumni. In the events during last academic year, several events were held with a few alumni participating. I would like to encourage students to take this opportunity serious and attend with a purpose, come prepared with their CV and a list of questions."

- Raheleh Dilmaghani, PhD 2010, President of UCSD ECE Alumni

"As an honorary Jacobs School of Engineering alumnus - honorary because JSOE was but a glint in UCSD's eye when I was an engineering student in the 70's. I was fortunate to have been invited to participate in JUMP events from its founding, participating as an industry panelist or as an alumni "conversationalist" joining a table of students. Every event has been fun, rewarding, and a valuable as the conversations open the students' eyes."

- Sam Knight, B.A. Applied Physics and Information Science 1973, VP Customer Relations, LocationSmart

TRANSFER PREP SUMMER PROGRAM 2016



Transfer PrEP is an annual 3-day summer program for incoming transfer engineering students. This year, 28 students from local community colleges participated in activities designed to foster a sense of community and support, prepare them academically for the rigor of engineering studies, build awareness of relevant campus programs and resources, and connect them to industry and professional networks. Two of this year's participants are veterans, 25% attended Breakfast with the Deans during Transfer Triton Day, 36% are from underrepresented minority groups, and 50% are first generation students. To learn more about the Transfer PrEP program, visit tinyurl.com/transferprep.

SUMMER PROFILES

see what our engineering students were up to this past **SUMMER!**



Sara Masjedi

(pictured 7th from left in skull shirt)

STRUCTURAL
ENGINEERING
4TH YEAR
IDEA SCHOLAR

Tell us what you have been up to this summer.

This summer, I was interning with the Advanced Design team within the Structures Division at NAVAIR. I worked on a project where I attempted to identify the effects of cold spray on structural elements within F/A-18E/F aircraft. Cold spray is a coating deposition method used to restore dimensions to components damaged by corrosion or wear. During this project, I determined which components were good candidates for cold spray repair, designed coupons for tensile and fatigue testing, and performed tests in order to quantify the effects of cold spray. I was also able to work on a side project where I learned to scan a part using a 3D scanner and then build a model of it in NX. The purpose of this project was to compare the scan model to the CAD model in order to identify any discrepancies.

How was that experience?

I had a great time with this internship - I was able to learn how to use a lot of new technologies and accomplish things that I

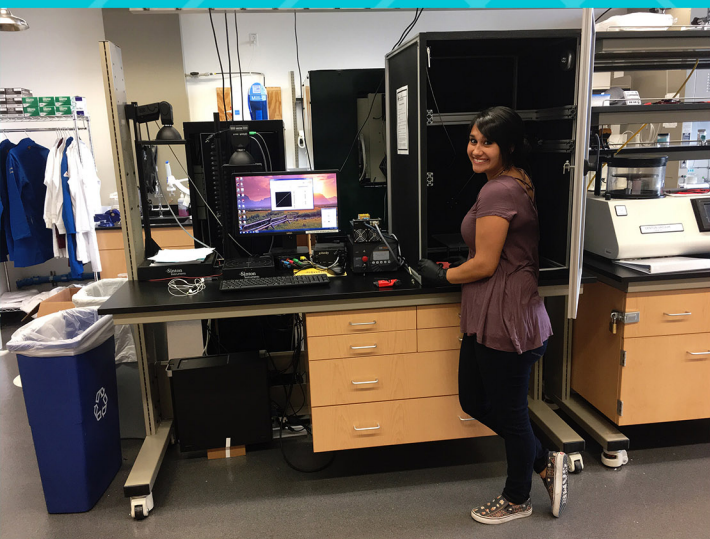
never would have thought I could do. It was also really interesting to be working on a naval base because I got to see things that most people don't have the clearance to ever see - I got the chance to meet an active squadron and be in the pilot seat of a helicopter!

What advice do you have for other engineering students who may be interested in what you did?

I'd definitely recommend this program to other students. If you like doing hands-on work rather than learning theoretical concepts, NREIP would be a great program to apply to. There may be some boring meetings you'll sit in on, but for the most part, you get to check out the different work that's done on base ranging from materials testing, repairing composite patches, nondestructive inspection, the manufacturing process, and a lot more.

"One of the most valuable things I learned from this experience was how to take ownership of a project."

- Aubriana Morris



Aubriana Morris

CHEMICAL
ENGINEERING
5TH YEAR
TRANSFER
STUDENT

Tell us what you have been up to this summer.

This summer I worked as an Undergraduate Research Assistant in Dr. David Fenning's photovoltaics lab at UCSD as an Undergraduate Research Scholarship recipient. My project was focused on implementing photoluminescence imaging to produce a spatially resolved image of the emitter saturation current density of a solar cell.

How was that experience?

While this summer's responsibilities intimidated me greatly, I grew more as engineer as result than from any other class I've taken or position I've held. One of the most valuable things I learned from this experience was how to take ownership of a project. When I first started in the lab, I was so scared to mess up. I wanted to get the job done in the same way my PI would do it, so every decision I made, I worried he wouldn't approve. After a while though I finally realized, this is MY project. He trusts ME to solve the problems that arise. It's okay to make mistakes, and it's okay if my method turns out to not be the most efficient. Right now, the main question is: Does it work? It has been very exciting to learn to trust myself as I solve problems.

What advice do you have for other engineering students who may be interested in what you did?

I would advise students who are interested in photovoltaics and solar cell efficiency to become comfortable with programming. So much of the work done with solar cells involves simulations in Matlab and other software, and a working knowledge of basic programming becomes a must. Additionally, I came to see how multidisciplinary engineering is, so if you have the opportunity to learn any mechanical engineering skills, take advantage of it! When I came in the lab, I had no idea I'd end up in a machine shop cutting sample stages to the right dimensions, ordering parts I needed but had never heard of off the McMaster-Carr website, and constructing a laser from parts! As a Chem-E, this was quite a shock, but I couldn't have loved it more! If you can round out your skills in many disciplines, you are all the more marketable.



Deborah Gardner

STRUCTURAL
ENGINEERING
4TH YEAR
TRANSFER STUDENT

Tell us what you have been up to this summer.

NREIP Internship at Naval Postgraduate School conducting research with Meteorology Department Chair, Dr. Nuss.

How was that experience?

I learned that I don't want to pursue meteorology for grad school.

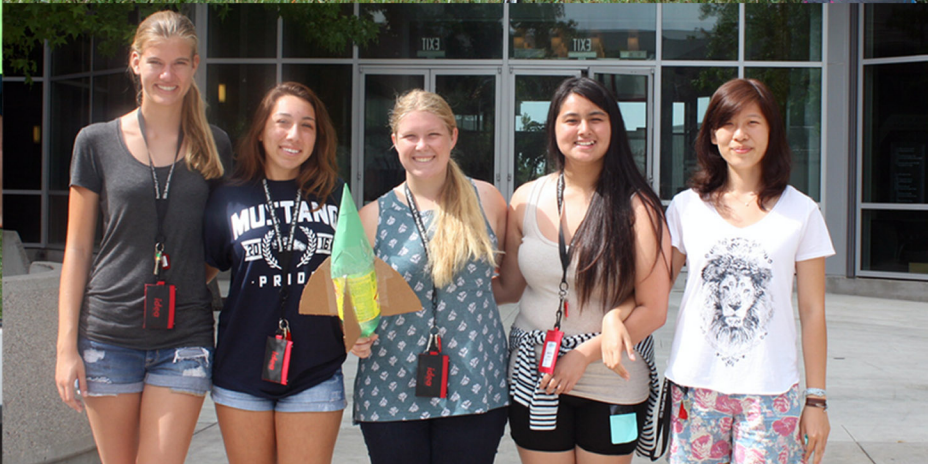
What advice do you have for other engineering students who may be interested in what you did?

Ask around to find out what the application requires and get everything together over the summer; the NREIP and NASA applications are due 6-9mos in advance and the application process is lengthy.

Would you like to share anything else?

Save enough money through the year to support yourself the first few weeks of summer without a real income.

FRESHMAN SUMMER ENGINEERING INSTITUTE 2016



The Freshman Summer Engineering Institute kicked off its inaugural five week pre-engineering residential program this past summer for admitted freshman engineering students at UC San Diego, Jacobs School of Engineering. 63 accepted students were enrolled in six credits of coursework (two classes) that will count towards their major. They also participated in daily activities designed to foster a sense of community and support among the cohort. With this hands-on curriculum, the program aimed to prepare incoming students academically for the rigor of engineering studies, build awareness of relevant campus programs and resources, and connect diverse engineering students to academic and professional opportunities. To learn more about the Summer Engineering Institute visit tinyurl.com/ideaSEI.



Photos by Erik Jepsen

SPOTLIGHT CORNER



Maged Elsharkawy
Electrical Engineering
Class of 2016

"Learning about the IDEA Student Center opened so many doors for me."

What are you up to now?

I am currently interning at T-Mobile in their RF Engineering Deployment Office in San Diego. I am working with a team that is responsible for providing great experience for all T-Mobile customers by doing optimization to existing towers as well as adding new towers where service needs improvements. I have also worked on complaints submitted by customers and helped senior engineers do the necessary optimizations to maintain the high standards for T-Mobile. I have gained invaluable knowledge and new skills in RF Engineering through this experience. Currently, I am interviewing with various companies for full time engineering positions. I am very excited about the next chapter in my professional and personal life, and my wife and I are expecting our second child in January.

What does the IDEA Student Center mean to you?

When I transferred to UC San Diego in 2013, I was unsure about a lot of things, such as which courses to take, organizations to join, and how to go about becoming involved in research. Learning about the IDEA Student Center opened so many doors for me. I was part of the Transfer PrEP program and was both a mentor and mentee for T.E.A.M. I met many new people through IDEA and made lasting friendships that supported me in accomplishing my goals. I remember going on lab tours and seeing what research professors were doing, and being really interested in joining a research group. After my first year as a transfer student, I was able to join Dr. Todd Coleman's lab doing research on flexible and wearable electronics. Working with Amr, a PhD student, I developed many new skills in research that standard didactic coursework does not provide. I was also able to work in the fabrication lab and get training on a few different machines. Working with Dr. Coleman was a wonderful and unique experience, and I loved how he always pushed the boundaries to try new things. I thank IDEA for leading me to these valuable experiences and mentors.

What advice/insight do you have for current engineering students at JSOE?

Get involved with organizations that will help you grow and enhance your college experience. Attend events and make an effort to get to know new people. Don't forget to network with people with different backgrounds and majors. Coursework alone is not enough to prepare you for the professional world, so become active in projects, organizations, or join a research lab. The experiences you will gain will help you stand out when applying for future positions or internships. Utilize the wonderful resources that the IDEA center is providing ; it's an excellent place to get to know your peers, as well as network with professionals from big companies, and they have great events throughout the year!

GET CONNECTED!
information & knowledge is key!

@ucsdidea   

We provide all things engineering - from job openings to technical workshops
Follow us on our **Facebook** page **ucsdidea** for the latest news and opportunities
We're even on Instagram, Twitter, and Tumblr!



PROFESSIONAL EVENING WITH INDUSTRY

UC San Diego, Jacobs School of Engineering
November 7th, 2016

ON Monday, November 7th
Price Center West
Ballroom

5:30PM Keynote Speaker and
Dinner
(Invitation Only)

6:30PM Career Fair
(Student Registration Required)

The 8th annual Professional Evening with Industry is brought to UCSD by the Society of Women Engineers (SWE), National Society of Black Engineers (NSBE), and Society of Hispanic Professional Engineers (SHPE).

Dress code for this event is business casual or business professional. Students are recommended to dress in business professional attire.

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