

# SOCIETY OF WOMEN ENGINEERS

SEPTEMBER 2006

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## WELCOME BACK AND TO THE CLASS OF 2010!

Welcome Class of 2010 on behalf of the Membership & Information team, and welcome back to all the upper-classmen members. We are the team of people who throw study breaks, recruit new members, send you to conferences, and make sure you're in touch with everything MIT SWE has,

and will be putting on. We are happy to have met and welcomed over 140 new freshmen members to MIT SWE in this new school year with plenty of Mike's Pastry and pizza, and hope to see all our new members again during the year.

Don't forget to sign up for the SWE National Conference, Octo-

ber 12-14, Kansas City, MO, airfare and lodging paid for by MIT SWE. Email [wendili@mit.edu](mailto:wendili@mit.edu)

Wendi Li  
VP Membership & Information  
[wendili@mit.edu](mailto:wendili@mit.edu)

## REGISTER FOR THE 2006 CAREER FAIR BANQUET

A long standing tradition, the MIT SWE Career Fair is a great opportunity for undergraduate and graduate students to network with company representatives while enjoying a formal dinner. This year the event is held in the newly renovated Marriot conference facilities and features seventy representatives from companies like Google, Amazon, Pfizer, and

Boeing. The night starts off with a networking section before it is followed by a sit down dinner. And the best thing is that it is free to all pre-registered students. To pre-register, just drop by the Lobby 10 booth from 10-4pm September 12 - 14<sup>th</sup>. A \$10 deposit is required but will be returned to you at the banquet itself. This is one of SWE's most well attended and service-

able events, and we hope you would attend as well.

If you have any questions, or would like to help out the day of (and get to meet the company representatives beforehand that is) please email [c\\_chin@mit.edu](mailto:c_chin@mit.edu) or [pzheng@mit.edu](mailto:pzheng@mit.edu).

Christine Chin  
Patricia Zheng

## 2006 CAREER FAIR: SEPTEMBER 20, 2006

On September 21<sup>st</sup>, the Society of Women Engineers co-hosts the MIT Career Fair 2006 with the Class of 2007 and the Graduate Student Council. MIT Career Fair is the largest career fair at MIT with about 300 companies and 70 sponsors, including Platinum Sponsors Oracle, Vecna Inc., and Microsoft.

As one of the two representatives from SWE, I serve as Career Week Logistics Director. Career Week--which extends from Monday, September 18<sup>th</sup> to Friday, September 22<sup>nd</sup>--features the annual Alumni

Dinner, the Sponsor Happy Hour, and a series of Sponsor Information Sessions. Beyond organizing Career Week events, I work with Career Day Logistics Director Samantha O'Keefe (the other representative from SWE), as well the representatives from the Class of 2007 and the Graduate Student Council. After months of Sunday evening meetings and late-night conference calls, we are certain that MIT Career Fair 2006 will bring more interviews and jobs to students across campus than ever before. Visit <https://career-fair.mit.edu/> to post your

resume and check out the Career Week schedule. I highly encourage you to attend MIT Career Fair 2006 and wish you the best of luck from SWE!

Jennifer Kwok  
Career Fair Logistics Director

# MIT Career Fair 2006

## UPCOMING EVENTS FOR SEPTEMBER:

- GBM 9/14
- Deadline for National SWE Conference 9/17
- Career Fair 9/21
- Career Fair Banquet 9/21

**SUMMER INTERNSHIP TESTIMONIALS FROM SWE MEMBERS**

Many of you might be wondering what SWE board members have been up to this summer. So here it is, in their own words ☺

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**Name:** Yushan Kim  
**Board Position:** Secretary  
**Year:** 2007  
**Major:** 3  
**Company:** Transform Pharmaceuticals, Inc.  
**Location:** Lexington, MA

At TransForm, I worked on two different projects for transdermal products, which involves drug delivery through the skin. The first project concerned formulation of drugs, permeation enhancers, and adhesive polymers for transdermal patch design. Meanwhile, I also developed a method for making bio-mimetic model lipids of the stratum corneum. Outside of technical knowledge, I gained invaluable exposure to working in an industrial setting, managing time, and cooperating with teams.

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**Name:** Michelle Lustrino  
**Board Position:** Outreach  
**Year:** 2009  
**Major:** 2  
**Company:** Boehringer Ingelheim Pharmaceuticals, Inc.  
**Location:** Connecticut

Over the course of this summer, I had the wonderful opportunity to work at Boehringer Ingelheim Pharmaceuticals, Inc., in Connecticut, for their BioMolecular Screening Group doing engineering work. Through four different projects, I was able to see how closely connected the work of mechanical engineers is to that of chemists, which truly was very interesting. My projects included:

- Engineered prototype laboratory instrument from brainstorming to prototype construction, proved feasibility, established operational protocols, and automated device for future use.
- Scaled down dimensions and design components for previously developed laboratory equipment.
- Evaluated performance of a newly proposed microplate material. Conducted detailed testing and analysis; results were used to make commercial commitments.
- Performed other important laboratory duties, including resetting the heights of test tubes that rested in technology plates (~4200 plates).

Each of my projects was unique and made me think in different ways. I was certainly able to learn a lot and gain a skill set that I will now take with me wherever I go.

As a note to the Class of 2010, this time last year, I never thought I would have been able to get an internship coming out of my freshman year, but at the end of my Spring semester, everything sort of came together. I would strongly suggest exploring your options. Having MIT on your resume, in addition to what you achieve here, certainly takes you a long way!!

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**Name:** Jijun Chow  
**Board Position:** Publicity  
**Year:** 2009  
**Major:** 22  
**Company:** Bloomberg LP  
**Location:** New York, NY

I had an internship at Bloomberg LP this summer, which is located on 731 Lexington Ave in New York City. I worked at Tradebook LLC Compliance Department, which deals with legal/contractual issues that may arise during platform sales transactions. I did several projects; difficulty of the assignments varied due to their different natures and time commitments. Among the bigger projects were Bloomberg Liquidity Sales Legal Clearance Chart update, Accommodation Policy categorization, and B-trade review. Among the smaller projects were Hedge Funds registration status update and High Risk firms assessment.

At Bloomberg, I not only learned how to perform tasks on their very own Bloomberg Terminal but also got the opportunity to work with others in a professional financial environment. I attended seminars such as Economy & Market Players and Presentation Skills Workshop, and shadowed at different departments such as Tradebook, Global Support, Tech Support, and Installs. In addition, as a Bloomberg intern, I participated in several of the company's volunteer events.

This internship was productive. I was exposed to an environment that I have never experienced before, which had indeed broadened my scope and given me an opportunity to witness the amazing working field that Bloomberg offers.

**SUMMER INTERNSHIP TESTIMONIALS FROM SWE MEMBERS (CONT'D)**

**Name:** Wendi Li  
**Board Position:** VP of Membership  
**Year:** 2008  
**Major:** 6-3  
**Company:** GE Healthcare  
**Location:** Lawrence, MA

I spent twelve weeks last summer at GE Healthcare up in Lawrence, MA – that's about 40 minutes north of here. Before this summer, I had never considered applying my electrical engineering major to the medical field, so this summer was what you would call exploratory for me. I was curious where my options lied, having stayed closer to chips and wires while at MIT. Within GE Healthcare, I was with the Surgery division, and my particular project was electromagnetic trackers. Minimally invasive, image guided surgery requires tracking technology to guide surgical instruments within the patient. Our particular technology relied on electromagnetic induction to pinpoint exactly where a surgeon was cutting. My project of focus last summer was metal tolerance – conductors in the tracking volume that can disrupt transmitting fields due to inductance, eddy currents, etc. How do you resolve these problems? Well that's company confidential.

I spent most of the summer developing a novel testing protocol and using that to characterize GE's current system and proposed metal tolerance solutions. Officially, I was the team leader in the Six Sigma metal tolerance project that is still ongoing, although I am no longer a part of it, which is an interesting concept considering I was the intern and everyone else on the project had been with the company and the technology for years. I also spent a good amount of the summer on Matlab, for which I now have a strong appreciation of. Towards the end of summer I spent a good amount of time developing tools and GUIs in Matlab that they tell me will be very useful to the company after I leave. So that was summer at GE Healthcare in a nutshell. A valuable experience definitely. My team is searching for two interns for next summer. Feel free to contact me if

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**Name:** Julie Shi  
**Board Position:** Newsletter  
**Year:** 2008  
**Major:** 10B  
**Company:** Advanced Electron Beams, Inc.  
**Location:** Wilmington, MA

This summer I interned at a small start-up company called Advanced Electron Beams. They manufacture low-voltage electron beam emitters which can be used a variety of different applications, such as ink curing, air sterilization, surface sterilization of foods, medical device sterilization, and VOC (Volatile Organic Compound) and odor destruction. I was technically termed a marketing intern, but I didn't really do much marketing. My supervisor was the Director of Marketing, but she has a Ph.D. in chemistry, so whatever your degree is in doesn't necessarily mean what you're going to do for a living.

Anyway, I had three main projects this summer. I was to help in the validation of the company's technology to destroy VOC's in the air for pollution abatement, improve their metrology system for manufacturing the emitters, and also do some market research on potential academic partners. These were exciting projects to do for an intern since most large companies already have entered their major market segments and their metrology system usually has already been well-developed. Working in a small start-up lets you work hands-on in a vital stage in the company, so you really feel like you contributed a lot to company after you're done.

If you want to find more out about AEB, you can visit them online at <http://www.aeb.com>. Or you can ask me about anything you'd like to know about the company or my great experience there. Feel free to email at <julieshi@mit.edu>.

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**Name:** Sushama Dasari  
**Board Position:** VP of Outreach, Advocacy, Scholarship  
**Year:** 2008  
**Major:** 6, BME  
**Company:** Merck & Co.  
**Location:** West Point, PA

This summer I interned at Merck & Co. in West Point, Pennsylvania. Unlike most of the Merck interns who worked in the Research Labs or Vaccine Division, I was in Information Services supporting Merck's United States sales force. Using Visual Basic .NET and SQL, I added functionality to certain automated testing tools utilized by my IS team members to analyze their software. During the weekends I explored Philly and its outskirts along with my fellow interns.

All in all I had a great time and would recommend the experience.

## HOW TO BECOME A NATIONAL SWE MEMBER

Become a member today! You DON'T have to be an engineering major, a science major, or even a woman! Wow! Seriously, anyone can join SWE, and in the process meet some fun and interesting people. We hold many professional, social, and community activities throughout the year.

As a member, you are part of a community of peers with access to the tools, training and role models you need to realize your aspirations as an engineer and a leader. Your section will immediately become a valuable resource for academic, professional and fun activities.

How do you join?

1. Go to the National SWE website at <http://www.swe.org/> and click on Membership on the left side menu. Then click on "Join" or you may choose to read about the types of membership. One option is Joint membership between SWE,

NSBE, and SHPE.

2. Once you've joined, print out your confirmation, and bring it to the next Board meeting to get your 50% reimbursement.
3. To join MIT SWE, send an email to our Vice President of Membership, Wendi Li, [wendili@mit.edu](mailto:wendili@mit.edu), to be added to the MITSWE mailing list for information about meetings and SWE news. You can also let us know whether you'd like to be included on the swe-jobs mailing list, where companies send us information about available jobs and internships.

What SWE student membership offers you:

- membership to MITSWE and the National SWE for one year

- access to a huge network of SWE professional members for networking or advice
- scholarship/job information through our meetings, and email list, and job page
- free food!
- faculty/student socials, recruiter/student socials, plant tours, workshops, speakers, community activities, socials with other SWE student chapters
- support systems—peer groups, mentors, advisors, industry leaders
- section programs including speaker events, seminars and leadership opportunities
- SWE career Center for internship and full time employment search and career planning
- SWE Magazine
- SWE National and Regional Conferences

**Join National SWE!**  
**Get 50% OFF SWE membership!**

## EVENT CALENDAR: SEPTEMBER 2006

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4 Labor Day	5 Registration Day	6 First Day of Classes	7	8	9
10	11	12 Registration Starts for Career Fair Banquet 10am–4pm (Lobby 10)	13	14 General Body Meeting 7:30–8:30pm (Walker Memorial)	15	16
17 Deadline to Sign Up for SWE National Conference	18 CAREER WEEK	19 CAREER WEEK Deadline #1 to Sign Up for "Sustaining Global Pressures..." Conference	20 CAREER WEEK	21 CAREER WEEK MIT Career Fair 11am–5pm (Johnson) Career Fair Banquet 6–8pm (Cambridge Marriott)	22 CAREER WEEK	23
24	25 Student Holiday	26 Deadline #2 to Sign Up for "Sustaining Global Pressures..." Confer-	27	28	29	30

## Q&A: ASK SWE A QUESTION!

Dear SWE,

I'm always seeing all the great events that you sponsor and I sometimes get jealous that I'm not a woman. Can guys actually join SWE?

Sincerely,  
"Man" Engineer

Dear "Man" Engineer,

Of course you can join! SWE is open to every MIT student, male or female, undergraduate or graduate, engineer or non-engineer. Don't feel weird that you might be outnumbered by women at the SWE

events. It'll be good for you. Guys can even compete for SWE scholarships (a guy won a scholarship this past year). Join and start enjoying the benefits of being a part of SWE!

Sincerely,  
SWE



## 2006 SWE SCHOLARSHIP WINNERS

Congratulations to the winners for the 2006 SWE Scholarships! Awards will be presented at the September GBM.

Undergraduate of MIT Community Scholarship (\$2000): Ali Alhassani ('08)

Senior-class Scholarship (\$2500): Brittany Montgomery ('06)

National-member Scholarship 1<sup>st</sup> place (\$3000): Ellen Sojka ('08)

National Scholarship 2<sup>nd</sup> place (\$1500): Xiaowen Wendi Zhang ('08)

Class of '10 Scholarship (\$2000): Neha Batra ('10)

Thanks to everyone who applied! Information about next year's scholarships will be sent out in the spring.

Your scholarship chair,  
Ruchi Jain

## 2006 SWE NATIONAL CONFERENCE

The 2006 Society of Women Engineers National Conference will be held in Kansas City, Missouri. It will be taking place from Thursday, October 12<sup>th</sup> to Saturday, October 14<sup>th</sup>. It is a really exciting event that includes career development seminars, technical/educational training, opportunities for net-

working, and a great career fair with tons of companies from every field of engineering. Everyone is welcome to come (even freshmen!). SWE will pay for your lodging and airfare, you will only be responsible for the \$80 registration fee and 1/2 of the cost to be a national SWE member

(\$10) if you aren't a member already. The deadline to apply is September 17<sup>th</sup> at midnight. To learn how to apply e-mail [ataggart@mit.edu](mailto:ataggart@mit.edu) and/or [leonj@mit.edu](mailto:leonj@mit.edu). The website for the conference is : <http://www.swe.org/conference>.

## 2006 GLOBALIZATION CONFERENCE IN INDIA

Have you ever thought about going to India but didn't know what the heck you'd do there? Would you like to travel across the world for a fraction of the cost?

You are invited to attend a conference on "Sustaining Global Pressures: Women in Science & Engineering" with women and men from around the world!

Please consider this a once-in-a-lifetime opportunity. Logistical details for the conference for the trip are below. Please email Nupur Garg at [nupur@mit.edu](mailto:nupur@mit.edu) if you are interested in attending. You will need to give a deposit of \$140 for confirmation of attendance.

**First deadline: 5PM, Tuesday, September 19th**

**Second deadline: 5PM, Tuesday, September 26th**

Total cost for students is expected to be around \$500 with funding from grants that you can apply for.

Flight from Boston to Delhi:  
Departing Boston at 5:45PM on Friday, November 3rd Arriving in Delhi at 8:15PM on Saturday, November 4th

Flight from Delhi to Boston:  
Departing Delhi at 11:45PM on Thursday, November 9th Arriving in Boston at 7:41AM on Friday, November 10th

All transportation within India to and from the conference will be provided for.

Also, all accommodations and lunches are included in the registration fee of \$140. Lastly, November 10th is a school holiday, but since you will have to miss 1 week of school to go, you might want to return as soon as possible to catch up on work. If the majority of participants want to return later to give them more free time in India, then that can also be arranged. Currently, November 5th and November 9th are primarily sight-seeing days.

Conference Details can also be found at <http://www.iwsaroorkee.inconference.htm>.

**Want to travel?  
Attend the  
SWE National  
Conference in  
Kansas City,  
Missouri!**

Check us out online!

<http://web.mit.edu/swe/www/>

Massachusetts Institute of Technology  
Building W20, Room 447  
84 Massachusetts Avenue  
Cambridge, MA 02139  
E-mail: [swe-exec@mit.edu](mailto:swe-exec@mit.edu)

## Society of Women Engineers

ASPIRE • ADVANCE • ACHIEVE

### SWE Mission (Adopted in 1986)

Stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, demonstrate the value of diversity.

### MIT SWE Mission (Adopted in 2006)

Educate members about career choices in engineering and promote community between professionals and students, including through alumni Educate and inspire younger generations about engineering, encourage the notion of diversity in engineering, and determine and advocate for the needs of women engineers at MIT Build community at MIT SWE, bridge a relationship with local and national chapters, and record and disseminate the culture, history, and events of MIT SWE.

## MIT SWE OUTREACH

### Promoting Engineering as a Positive Force in the Community

Welcome Back, Upperclassmen and Welcome to MIT, Class of 2010!

Looking to get involved in the Society of Women Engineers? Want to make a difference in the lives of the next generation of engineers? Get involved in SWE Outreach!!

Our names are Michelle Lustrino and Lauren White, and we are the Outreach Coordinators for MIT SWE. Over the course of the year, we coordinate a variety of events for younger students in the Cambridge/Boston area, and we encourage all members of SWE to get involved. From event planning to mentoring on the days of the event, we are always excited to see new and returning faces!!

For new members to SWE, our events include:

**\*\*Brownie and Junior Girl Scout Engineering Days:** These days give younger girl scouts the opportunity to explore engineering with hands-on activities. Last years activities included egg drops, film canister rockets, and marble mazes!!

**\*\*National Engineers' Week:** Daily activities, with a culminating event on Saturday, are planned and brought to the Boston Children's Museum to get children excited about engineering! Last year's activities included tinfoil boats, kitchen chemistry, and testing structures!

**\*\*BeaverDash:** High school students team up with MIT students to compete in an engineering design challenge! The day is complete with free t-shirts for all participants, free snacks and lunch, and prizes for all participants!! Last year's challenge was centered around MIT hacking!!

We are always looking for feedback about our events and for new events that we can bring to the community!! If you have any ideas or are interested in getting involved, please feel free to email us at [mitsweoutreach@mit.edu](mailto:mitsweoutreach@mit.edu). And be



Brownie Girl Scouts with the Tim

sure to look out for more opportunities throughout the year!!

We are looking forward to another great year!!

Your Outreach Chairs,

Michelle Lustrino and Lauren White

*Look out for upcoming Outreach Events:*

NOTE: Times are approximate.

November 4 - Brownie Girl Scout Try-It Day (9am-1pm)

February 18-24 - National Engineers Week (daily events)

March 10 - BeaverDash (9am-4pm)

April 21 - Junior Girl Scout Build-It Day (9am-1pm)