



SWE Outlook

The Philadelphia Section ~ Region E

FY13.6 April 2013

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LETTER FROM THE PRESIDENT

It's time to celebrate in Philadelphia SWE! As we near the end of our programming calendar, we're taking a look back at the past year. We had some fantastic programming each month in the areas of professional development, networking, and outreach. We were to spend time getting to know not only other Philadelphia SWE members, but also members of other societies and collegiate SWE members via several joint events. Although we have had a great year, if you have any thoughts on ways in which we can improve for the future, please don't hesitate to drop me a line at president@philaswe.org.

On April 28, we had a great opportunity to recognize outstanding students as well as our professional members at our annual Awards Brunch. Please look inside of our newsletter for the amazing accomplishments of these young (and young-at-heart) women. We additionally recognized the collective work of our team of officers who have worked so hard throughout the year to put together the activities mentioned above.

Our success could not be possible without the dedication of many of our members. Are you interested in becoming part of our team of stellar SWE officers, or do you know someone who you think would be great? Our Nominating Committee is in the process of putting together a candidate slate for FY14 for our elected positions of President, Senior Vice President, 2 Vice Presidents, Secretary, Treasurer, 2 Section Representatives, and Alternate Section Representative. Please contact Tracie at rsvp@swe.org to sign up or for more information.

Alexis Wasserman
FY 13 Section President

In this Edition:

- Nominate a SWEFL-Extension
- Recap: Outreach Events
- Award/Scholarship Announcements!

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SOCIETY NEWS

Nominate a SWE Future Leader (SWEFL)

Program Update: Extended Deadline May 25!

Do you know any outstanding collegiate members that deserve recognition and the opportunity to learn and meet others in SWE? Nominate her as a FY14 SWE Future Leader (SWEFL)! Nominees should have no more than two years left of her current degree program (undergraduate or graduate) and a minimum GPA of 3.0/4.0. Nominees should be active collegiate member with strong leadership potential and an interest to extend involvement in the Society beyond the collegiate experience. SWEFL's are chosen per region and have the opportunity to attend the Collegiate Leadership Forum (CLF).

This year CLF will be held in conjunction with the WE13 annual conference the weekend of October 26, 2013 in Baltimore, MD.

The [nomination form](#) is due on May 25, 2013. All previously submitted nominations are still under consideration and do not need to be resubmitted. SWEFL selections will be decided by July 1st, 2013.

SECTION NEWS

Recent Events

Delaware Valley Science Fair – Special Awards

Wed April 3rd, 2013

By Barbara Faust

SWE-Philadelphia Section provided Special Awards to 24 students participating in the Delaware Valley Science Fairs (DVSF) competition held at the Greater Philadelphia Expo Center in Oaks, PA on 3 April 2013. Over 1000 projects were entered by students who had advanced from 13 regional competitions in Southeastern Pennsylvania, Southern New Jersey, and Delaware. DVSF includes five separate science fairs, one each for students in Grades 12, 11, 10, 9, and 6-7-8, and two competitions for teams, one for Grades 9-12 and the other for Grades 6-8. SWE Special Awards were provided for each of the five grade-level fairs and one of the team competitions. The top three students (Gold, Silver, and Bronze Medalists) in each of the high school fairs advance to the Intel International Science and Engineering Fair (ISEF) that will be held from 11-18 May in Phoenix, AZ. Two of our award winners are DVSF Medalists and several received Category honors for their grade level.

High school students elect to compete in one of 14 categories, namely, Behavioral and Social Sciences, Biochemistry, Botany, Chemistry, Computer Sciences, Earth & Space Sciences, Engineering, Environmental, Mathematics, Medicine / Health, Microbiology, Physics, Zoology, or Teams; the younger students may also select the Consumer Science category. As engineering research is often associated with more than one category, students may have an engineering-related project that is entered in categories such as Environmental, Earth & Space Sciences, Physics, Chemistry, and Teams.

SWE Judging Team members this year were Elisha Rios, Maggie Feinberg, Maggie Schwartz, and Barbara Faust. During the morning session when the students were not present, team members reviewed over 150 engineering or engineering-related projects entered by likely female students (which is often hard to distinguish based on just a first name). About 50 students were identified as potential candidates for the SWE Special Awards; most of these students were interviewed about their research during the afternoon session.

The SWE Special Awards include a SWE Certificate of Achievement personalized with the award level, student's name, school, and project title for each winner. First and second place winners also receive monetary awards of \$100 and \$50, respectively. There is a special First Place Hoffman Award of \$1000 provided for 12th grade girl who has an outstanding project, plans to study engineering in college, and has been accepted at an ABET-accredited school for the fall. The other awards are \$100 checks for First Place and \$50 checks for Second Place. No monetary awards are included with the Third Place and Honorable Mention awards.

Each winner is listed at the end of the newsletter in the Appendix.

GEARS DAY

Saturday April 6th, 2013
University of Pennsylvania

GEARS Day was a great day for both participants and Philadelphia SWE members alike. High school girls from the area were able to participate in rotating science and engineering activities to learn about possible career and school choices. Participants had the opportunity to attend a panel of students and professional engineers and were able to also chat and ask questions over delicious SWE cupcakes and lunch. The event also featured a photo booth to capture the experience in a photo.

Our Merck volunteer's created a workshop on filtration focusing on how to use the scientific method and our Boeing member's used a software program to demonstrate bridge design and structural engineering.

A few words about the program from this year's co-chair Hilary Grosskopf:

"I really enjoyed planning and running GEARS Day this year with Julie. I think my favorite parts are getting to work with so many enthusiastic, kind women of all ages that are passionate about collaborating and making a difference through engineering, and then also receiving positive feedback the high school participants about the experience. So I think the event went very well because we had such awesome participation and have been receiving a lot of great feedback! We have two new ladies taking over the GEARS Chair roles so I'm looking forward to next year when I will be supporting and volunteering at GEARS."



Highlights from the Philadelphia Science Carnival

By Danielle Dunn

On Saturday, April 20, the third annual Philadelphia Science Carnival was held around the Ben Franklin Parkway. This is the showcase event of the ten-day, community wide Philadelphia Science Festival, and SWE-Philadelphia showed up in force! To encourage scientific inquiry and imagination, this year's 150+ exhibits were all described in the form of a question, and ours was "How can you inflate a balloon without blowing into it?" The answer: using the magic of chemistry! In this activity, we combined vinegar and baking soda in a bottle to produce a chemical reaction that gives off carbon dioxide, inflating a balloon attached to the mouth of the bottle. This allowed us to demonstrate how engineers use science in creative ways to accomplish a goal, in this case, inflating the balloon.



We knew it was going to be a busy day when our eager audience began to arrive even before the official start time of the event. Literally hundreds of Philadelphians of all ages visited our booth over the course of the day, and it was a treat to see the awe and delight on many of the kids' faces, especially the youngest future scientists and engineers. Reaching an audience of this scope would not have been possible without the energy and enthusiasm of our volunteers from the Philadelphia and Drexel sections of SWE, so thank you to Angeline Aguinaldo, Danielle Dunn, Diane Ess, Jen Garner, Michelle Gawrys, Neha Thomas, Alexis Wasserman, Amanda Weissman, and Cassandra Zook.

I would like to highlight a couple of best practices for future outreach events like this. First, selecting the right kind of activity is critically important, and I think we've done a great job of that, both for this year and previous years. The balloon experiment was quick, easy, and flexible, allowing us to conduct it as either a demonstration or a hands-on activity depending on the size and age group of the audience at any given time. Fortunately, it also involved inexpensive and readily available supplies, as we had to make two runs to the nearest pharmacy to replenish our stock! So thank you to everyone who provided input on the selection of our activity. Secondly, the use of the SWEeter Futures website helped us to advertize the event more broadly and recruit volunteers. SWEeter Futures is a relatively new tool for coordinating outreach volunteers, and I hope we can use it even more effectively in the future.



Keep up with all our Outreach opportunities on our website: <http://www.philaswe.org/volunteer.php>

Questions? Want to help? Contact [Danielle Dunn](#), VP for Outreach.

Awards Brunch- Section and Collegiate Scholarships

Sunday April 28th Cuba Libre, Philadelphia

Our awards brunch this year was held again at Cuba Libre restaurant in Old City Philadelphia. We had our own dining room and began with a delicious brunch featuring poached eggs in enchilada sauce, french toast, and a spread of fruits. The presentations kicked off with a warm welcome from section president, Alexis Wasserman highlighting on a couple of our section accomplishments thus far this year including great outreach events, revamping of the section financial management and an

increased presence in social media. Treasurer, Jessica Snyder then introduced our keynote speaker Eunice Heath, Global Director for Sustainability Business Engagement and Education for The Dow Chemical Company. Eunice has been with Dow for over 20 years, relocated 7 times (including internationally) and more than a dozen different roles within the company. Heath gave a very down to earth speech stressing the importance of family, faith and balance. She shared a story about a business meeting she had in which she was told she should not be a business director because of her gender and color. Heath shared with us about how she rose to the occasion, stayed calm and demonstrated how she could be the better 'man.' She kept her professionalism and reputation while helping to eliminate a stereotype. She also told us about how she did not make a single career decision without first considering and consulting her family. Heath also highly recommended reading "Lean In" by Facebook's COO, Sheryl Sandberg. We were very glad and thankful to have Eunice join us for this event.



This year Philadelphia SWE presented five collegiate scholarships with funding provided by The Dow Chemical Company:

- Samantha Butwill**, Villanova University Class of 2015, Civil Engineering
- Jelena Renic**, Villanova University Class of 2013, Chemical Engineering
- Catherine Rojvat**, University of Pennsylvania Class of 2014, Bioengineering
- Nicole Woon**, University of Pennsylvania Class of 2014, Bioengineering
- Yibin Zhang**, University of Pennsylvania Class of 2013, Mechanical Engineering

Also presented was the recipient of the GE Foundation Scholarship:

Katie Nuzzo, York College Class of 2016, Mechanical Engineering

Barbara Faust presented the recipient of the Hoffman Award:

Angelica Chen, High Technology High School Class of 2013.



Alexis also took the time to recognize a few members of our professional section who went above and beyond the call of duty:

Danielle Dunn- Excellence in Outreach Programming
Jennifer Garner- Excellence in Communications
Jessica Snyder- Excellence in Financial Management
Andie Maret-Outstanding New Member
Diane Ess- Outstanding New Member

Congratulations again to all of our scholarship and award recipients!

Upcoming Events

Phillies Game

7:05 PM June 18, 2013

Citizen's Bank Park, Philadelphia Section 305

Come watch the Phillies versus the Washington Nationals with your fellow SWE members.

\$25 per ticket. Limit 2 tickets per SWE-Philly Member (if we have extra tickets at the end we will allow you to buy more). Tickets will be at will-call on the day of the game for pick-up. (Please only buy 2 maximum at this time). Please email rsvp@philaswe.org and pay via the Paypal link below:

https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&hosted_button_id=PJEMQ9TZT2NGY

MEMBERSHIP ANNOUNCEMENTS

Scholarship Winner's, Where Are They Now?

In conjunction with our scholarship winners that were just announced at the Award's brunch we would like to celebrate the winner's of years past to demonstrate the legacy of our talented winners. We asked past recipient Emily Chang to answer a few questions:

Emily P. Chang

University of Pennsylvania, Chemical and Biomolecular Engineering 2007

Currently a PhD student at MIT in Chemical Engineering (class of 2013), also received M.S. in Chemical Engineering Practice in 2009 from MIT.



How has receiving a Phila SWE scholarship influenced your life?

Receiving SWE scholarships while I was an undergrad at Penn boosted my confidence, helped me feel a stronger bond to SWE and motivated me to continue striving for the best in my work at school and in the community.

What are your goals/plans for the future? I have accepted a position as an Applications Scientist in the Clinical Diagnostics Division of Thermo Fisher Scientific. I'm also participating in their Product

Development College Program, which is one of their leadership development programs. For now, my goal is just to perform well at my new job and to make the most of all the experiences that come with moving to a new place. I enjoy leading and teaching, so I hope to be able to incorporate those into my career and life in the future.

Are you still an active member of SWE? If so, in what ways are you involved? I am not currently a member of SWE, but I'd like to consider that option once I start my new job.

When you were younger, say in high school, what were your plans for yourself? How are they different or have stayed the same? I think I always knew that I would pursue an undergraduate and likely a graduate degree, and that I would probably end up majoring in a technical field. Over the last decade or so, I've narrowed down my plans, but they are not incongruous with what I had envisioned for myself when I was younger.

Do you have any advice for collegiate SWE members as they choose their future careers? My advice is to keep an open mind. As a college student, I still had so much to learn and explore in terms of both specific area of study (as Chemical Engineering is very versatile) and job type. It was only through various experiences that I had in graduate school that I felt I had a better understanding of what would be a good fit for me.

Do you have exciting news to share? It could be anything from graduations to birthdays, engagements to professional accomplishments. Email the [SWE Newsletter Editors](#) with your exciting news!

OFFICER CONTACT LISTING

Elected Officers	Name	Email
Executive Council Voting Members		
President	Alexis Wasserman	president@philaswe.org
Vice President Outreach	Danielle Dunn	outreach@philaswe.org
Vice President Prof Develop	Jackee Mohl	profdev@philaswe.org
Vice President Comm	Jennifer Pesch	communications@philaswe.org
Secretary	Jennifer Garner	info@philaswe.org
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Alternate Section Rep	Tori Morgan	vmorgan811@verizon.net
2012 Committee Chairs and Section Leaders		
Outreach Group		
Awards	OPEN	
Certificate of Merit	Barbara Faust (Temporary Contact)	barbara.faust@swe.org
Collegiate Liaison	Mary Beth Biddle	marybethb422@gmail.com
Girl Scouts	OPEN	
Engineering Mini-Camp	Vicki Brown	vbrown@mail.widener.edu
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Messiah SIG Counselor	OPEN	

APPENDIX

DVSF Winners

The SWE DVSF Special Award winners for 2013 are listed below. These students did some exceptional work. Two students were identified as candidates for the Hoffman Award; one of our SWE award winners is the Gold Medalist for her grade level; and several of our winners are also category award winners for their grade level.

Grade 12 - Delaware Valley Science Fair

First Place Hoffman Award - Angelica Chen, High Technology High School, Lincroft, NJ

- project: *Towards the Prediction of Successful Outcome of the Transcatheter Aortic-Valve Replacement (TAVR).*
- Angelica plans to study BioMedical Engineering at MIT, Stanford, or Princeton
- She was also awarded Second Place in the Engineering Category for Grade 12

Second Place - Meghan Shea, Unionville High School, Kennett Square, PA

- project: *Optimizing the Coagulating Property of Moringa oleifera Seeds: A Novel Approach to Water Purification Techniques in Developing Countries.*
- Meghan plans to major in Engineering or Biology at Stanford University
- She was also awarded First Place in the Environmental Category for Grade 12

Grade 11 - Marie Curie Science Fair

First Place - Meredith Barr, Cheltenham High School, Wyncote, PA

- project: *Maximizing the Energy Efficiency of a Biodiesel Processor*
- Meredith is the Gold Medalist for Grade 11 and will be representing DVSF in the ISEF competition
- She was also awarded First Place in the Engineering Category for Grade 11

Second Place - Alice Lu, Germantown Academy Upper School, Fort Washington, PA

- project: *Waste Biomass Constructed Biodiesel Fuel*

Honorable Mention - Michelle Moffa, Holy Spirit High School, Absecon, NJ

- project: *Point-of-Use Water Filter for Developing Countries Year 3: Improving Effectiveness, Practicality and Sustainability of Arsenic-Removing Filters*
- Michelle was also awarded Second Place in the Engineering Category for Grade 11

Honorable Mention - Emily Smith, Springfield High School, Springfield, PA

- project: *A Study of Various Oils and Their Use as Commercial Biodiesels*

Honorable Mention - Erica Westlake, Academy of Notre Dame de Namur, Villanova, PA

- project: *Enzymatic Enhancement of Biofuel Production*

Grade 10 - Ben Franklin Science Fair

First Place - Kelly Gresh, Gwynedd-Mercy Academy High School

- project: *Scale Up of the Botryococcus braunii Oil Harvesting Process Using Ultrasonic Energy*
- Kelly was also awarded First Place in the Engineering Category for Grade 10

Second Place - Kaitlin Philcox, Cape Henlopen High School, Lewes, DE

- project: *Shape Airflow Dynamics*
- Kaitlin was also awarded Second Place in the Engineering Category for Grade 10

Third Place - Megan Gaffney, Haddonfield Memorial High School, Haddonfield, NJ

- project: *BPA, DBP and Infant Formula: Are U.S. Babies at Risk?*

Third Place - Caroline Boschetto, Villa Joseph Marie High School, Southampton, PA

- project: *Harnessing Hydrogen For Nautical Power*
- Caroline was also awarded Honorable Mention in the Engineering Category for Grade 10

Honorable Mention - Courtney Colletti, Pennsville High School

- project: *Shapes Matter*

Grade 9 - Benjamin Banneker Science Fair

First Place - Mikayla Ochels, Sussex Central High School, Georgetown, DE

- project: *"Black Gold"*
- Mikayla is the Silver Medalist for Grade 9
- She was also awarded First Place in the Environmental Category for Grade 9

Honorable Mention - Kara Raksin, Pennbrook Middle School, North Wales, PA

- project: *Plant Babysitter*
- Kara was also awarded Third Place in the Engineering Category for Grade 9

Honorable Mention - Makaylea Vicari, Woodstown High School, Woodstown, NJ

- project: *Coded Metal Corrosion*

Teams Grades 9-12

Honorable Mention - Tiffany Perumpail, Andrew Millman, and Matthew, High Technology High School, Lincroft, NJ

- project: *Development of Versatile Low-Cost Prosthesis Through Utilization of Granular Jamming*
- Tiffany, Andrew, and Matthew were also awarded Third Place for Teams - Grades 9-12

Grades 6-7-8 - Albert Einstein Science Fair

First Place - Hannah Morgan, Toms River Intermediate School, Beachwood, NJ

- project: *How Does the Arrangement of a Solar Array Affect Its Output?*
- Hannah was also awarded First Place in the Physics Category for Grades 6-7-8

Second Place - Emani Simeron, Beverly City School, Beverly City, NJ

- project: *Better Blades*

Third Place - Erin Gresh, Our Lady of Mount Carmel School, Doylestown, PA

- project: *Atmospheric Carbon Capture Using a Marine Diatom*
- Erin was also awarded Third Place in the Engineering Category for Grades 6-7-8

Honorable Mention - Savannah Bourke, Holicong Middle School, Doylestown, PA

- project: *Sound Waves and Propagation Through Materials*

Honorable Mention - Harleen Suri, Arcola Intermediate School, Norristown, PA

- project: *Biodiesel From Different Oils vs. Diesel From Crude Oil*

Honorable Mention - Brittany Gelb, Orefield Middle School, Orefield, PA

- project: *Biodiesel Fuel Efficiency*

**SOCIETY OF WOMEN ENGINEERS
PHILADELPHIA SECTION,
REGION E**

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Address Correction Requested

UPCOMING EVENTS

June	
June 8th	Phillies Game
June	
June 30 th	SWE Membership Renewal Deadline!



Mission: 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.

The Philadelphia Section was one of the original chartering sections of SWE, chartered on May 27, 1950.