



LETTER FROM THE PRESIDENT

Hello Philadelphia SWE,

April started off with our section participating in two outreach events: Spring Girl Scout Day and Delaware Valley Science Fair judging. At the Science Fair, Philadelphia SWE members spent the day viewing posters, interviewing students, and selecting winners local to our section. It's always impressive to see what students are doing these days! At the Spring Girl Scout Day, Philadelphia SWE was joined by The Coding Space, who taught the Girl Scouts how to code through hands-on workshops using Scratch and materials developed by The Coding Space (<http://www.thecodingspace.com/girlcode.html>). Participants gave the event excellent reviews, and we are happy to have had a second successful event with The Coding Space. This event was made possible by a Program Development Grant with the Society of Women Engineers through a generous donation from the ExxonMobil Foundation.

Later in the month, the section hosted an Underground Philadelphia tour. Personally, I loved the tour. I learned a lot of new things about Philadelphia and its history – did you know you can walk completely underground from Suburban Station to Jefferson Station (and beyond)? The foresight that early city planners had was incredible, and we still see the effects today. We were lucky enough to be joined by both an official tour guide and a SEPTA employee. Both were incredibly knowledgeable about Philadelphia and the evolution of public transportation in the city. I highly recommend the tour to anyone who may have missed it. I brought my mom along – she's like an honorary Philly SWE member at this point!

As I write this letter, the city is preparing for the hectic weekend that will be home to both the NFL Draft and the Philadelphia Science Carnival. Both events will bring many people into the city, and an Eagles fan and an engineer, I hope that Philadelphia gets some good picks and that our section can influence some young students to think about engineering in a new light!

In May, we will be attending a tour at Dow Chemical (a big section supporter), hosting our Spring Soiree (details to come!), and hold FY18 Philadelphia SWE elections. Keep an eye on your email, our Facebook, and other social media

accounts for information on our upcoming events and other information. If you have ideas or questions, feel free to reach out to me at any time. I can be reached at phila_president@swe.org.

Mary Beth Biddle

Mary Beth Biddle

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WELCOME NEW MEMBERS



The Society of Women Engineers is constantly growing and welcoming new women engineers in all stages of their careers. Here are the recent newcomers to the SWE Philadelphia Section.

Name	Membership Type
Jennifer Stahr	Professional
Alyssa Wedge	Professional
Brianne Roper	Collegiate
Daniel Yeisley	Collegiate
Sarah Siegel	Professional
Helen Wiley	Collegiate
Allie LaPorte	Professional
Victoria Heasley	Professional
Jillian Ditzler	Professional
Cinnamon Christian	Professional

SOCIETY NEWS

Apply for the FY17 Wow! Innovation Challenge by May 24

SWE is excited to announce the final FY17 Wow! Innovation Challenge. This challenge will focus on how SWE sections work to increase and enhance outreach efforts for K-12 students in STEM. Sections are encouraged to share new ideas and tips on planning the best outreach events. Visit [here](#) to learn more information about this final challenge and how to apply. The deadline to submit your entry (video, Powerpoint, or Snapguide) is May 24, 11:59 PM CT. One section/MAL/SWE affiliate will be awarded a \$500 Outreach stipend, featured on SWE social media, and the SWE All Together blog.

Governance Update

SWE Regions are being dissolved to make way for bigger and better things within the SWE organization. Updates are available at governance.swe.org.

SECTION NEWS

SWE Philadelphia Elections

FY18 is just around the corner, which includes electing new officers for the Philadelphia SWE section. Candidates are needed for the following positions:

- **President**
- **VP (3: Professional Development, Outreach, and Communications)**
- **Secretary**
- **Treasurer**
- **Section Representative**

If you are interested, please contact the Nominating Committee Chair, Cassie Zook (crz333@gmail.com). If you have questions about any of the positions, you may contact the current officers, listed at <http://philadelphia.swe.org/officers.html>, or Philly SWE President Mary Beth at phila_president@swe.org.

Volunteer Training – Resources

If you plan on volunteering with a Philadelphia SWE event, please review the following resources on STEM volunteering!

2017 Engaging Diverse Communities in Hands-On STEM (presented by the Franklin Institute)

- [Presentation](#)
- [Webinar](#)
- [2014 Philadelphia SWE Outreach Volunteer Training](#)

Please contact phila_outreach@swe.org with any questions.

Do you shop on Amazon? You could be missing an opportunity to help SWE!



Please support SWE Philly via smile.amazon.com. It only takes one click and then Philly SWE gets extra money to host events for you!

Stay up to date with SWE PHL through social media!



Website: <http://philadelphia.swe.org/>
Facebook: www.facebook.com/philaswe
LinkedIn: www.linkedin.com/grp/home?gid=4173718
Instagram: @PhilaSWE
Twitter: @PhilaSWE

Philadelphia SWE Member Spotlight

Learn more about your fellow SWE Philadelphia members!



Nikita Patel, E.I.T.
Mechanical Engineer

What company do you work for and what is your title?

Sherman Engineering, Project Manager

Briefly describe what you do?

I work in the medical device industry. Sherman Engineering specializes in medical gas. On a daily basis, I review bid drawings and quote medical gas components required by NFPA code to be installed in hospitals and labs. We work with a range of principals in selling their NFPA products, with a large focus on vacuum pumps. Sherman Engineering also offers specialized vacuum packages that can be customized to meet almost any application and room configuration.

What was your first job ever?

My first job ever was working as a lab assistant in the Physics lab during my freshman year of college. My first full-time job was working as a Mechanical Designer at NewAge Industries. It is a company that also specializes in medical devices. They sell high purity tubing used for pharmaceutical applications, and also have an industrial line of hose and tubing for more general industrial applications.

What is the most influential book you have read?

“The Goal” by Eliyahu M. Goldratt and Jeff Cox.

What goal are you working on that is yet to be achieved?

I currently have three goals yet to be achieved professionally. I am actively working on my MBA from Arcadia University, working towards my P.E. License and in training to take over as the Regional Sales Manager for the Mid-Atlantic region.

Philadelphia SWE Scholarship Recipients

Meet a few of the scholarship recipients for this year's Philadelphia section awards. Congratulations for the exemplary work in STEM!



Erin Brenneman, Messiah College

Civil Engineering, May 2020

Dow Chemical Scholarship

My greatest accomplishment has been my success in Science Olympiad throughout middle and high schools. Science Olympiad had a large part in why I selected an engineering major for college. I hope to coach my own team after college so students can have the same opportunity I had to be exposed to STEM related activities.

My most interesting trip will be traveling to Oaxaca, Mexico in May 2017. My collaborative team from Messiah College will be building a timber truss bridge for *Trigo y Miel*, a community center that feeds, supports, and shows Gods love to children.

When I am not studying, I can be found on my family farm, running, or spending time with friends and family.

Cara Sperbeck, York College of Pennsylvania

Computer Engineering, May 2018

Dow Chemical Scholarship

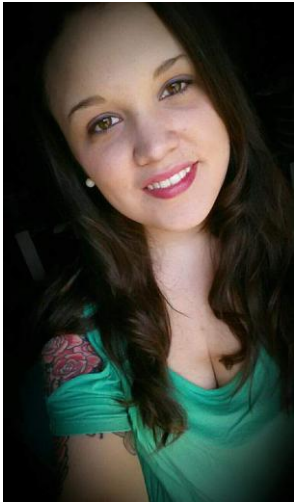
I am excited to say that I will be published in the next American Society of American Education (ASEE) journal featuring the work completed during my independent study for Robotic Operating Systems (ROS). It is an honor to be recognized for my hard work and research during this study.

I had my first co-op at Intelligent Automation Inc., a research and development firm, in Rockville, MD. As a member of the robotics and electromechanical systems group, I worked on my first biomedical project, a dynamically reconfigurable palpation trainer for medical simulation. It simulates various tactile sensations and abdominal diseases and disorders. I programmed the pneumatic valve control system with autonomous control of vacuum and pressure canisters, while also programming LabJack analog and digital I/O to control solenoid valves and a scroll pump.

In my spare time, I enjoy volunteering in the community and sharing my knowledge of engineering with others. I recently volunteered for TechGirlz, which is a program that teaches middle school girls to learn basic circuitry using littleBits modular electronics kits to make a bubble maker, light sensor car, and remote control car. I have also volunteered for First Lego League, where I taught elementary school kids how to build Lego robots. Volunteering for these programs is a truly rewarding experience; there's nothing better than seeing the kids' faces light up with excitement when they see their finished projects.

I am also a member of the York SPCA (The Society for the Prevention of Cruelty to Animals), and I love to cook, bake, swim, and scuba dive whenever I get the chance!





Abigail Strouse, Penn State Harrisburg

Mechanical Engineering Technology, May 2019

Quaker Chemical Co. Scholarship

I consider one of my biggest accomplishments to be the engine rebuild I did during my sophomore year of college. I bought a vintage '79 Datsun 280ZX as my first car when I was a senior in high school. A rod bolt broke about a year and a half after I got it and the crank forced the rod through the block resulting in catastrophic failure and caught the engine on fire. I resourced a junk yard engine and rebuilt it myself, and the car is still running great! There is nothing quite as rewarding as getting to drive that car knowing all the time and hard work I have invested in it.

I haven't done any internships as I have been working throughout my schooling. I have been working in machine shops for four years now. I started out as a CNC programmer/mill operator, and now I am a manufacturing engineer for FLSmith in Manheim, PA. A recent project I have been working on for them is a capital expenditure for a new lathe. They just wrote the purchase order for a machine I researched and recommended, a Doosan Puma

700XLM worth a base price of \$588k. This machine will replace a 30 year old machine, as well as increase productivity, and offer new capabilities to the plant. Some other responsibilities I have are programming, fixture design, and process improvement in the machine shop and weld room.

When I am not studying, I enjoy working on my Datsun - I am currently doing the body work so I can get it painted. I also enjoy hiking with my dog, Tesla, and riding my motorcycle.

Alexandria Kapusta, Drexel University

Civil Engineering B.S. & M.S., June 2018

Quaker Chemical Co. Scholarship

My biggest accomplishment would probably have to be becoming Drexel SWE President and continuing the efforts to keep improving our collegiate section. Every year it seems like Drexel SWE gets better and better. Between doing outreach events with local grade schools to hosting a huge panel event for minorities in STEM to creating an alumni mentorship program, I am doing everything possible during my year of presidency. I couldn't be more proud and excited to be the Drexel SWE President. Every day when I wake up and I think to myself, what can Drexel SWE do today to help our school, our members, Philadelphia citizens of all ages, and ourselves?

My most interesting co-op was working for Turner Construction as an assistant engineer on the FMC Tower. This is Philadelphia's second largest skyscraper. It was so much fun seeing a building of that size and beauty go from dirt to 49 stories.

When I am not studying I am either working out whether it is at the gym or with group exercise classes. I love to do November Project which is a free group workout every Wednesday and Friday morning outside at the art museum or other locations. I also love to cook! It is my relaxation time when I finally get home from my long days. I enjoy skiing in the winter and camping with family and friends in the warmer months.



The Robovikings are heading to the FIRST Championship!!

The Fighting Robovikings, sponsored by the SWE Philadelphia section, qualified for the FIRST Robotics Championship in St. Louis! They are among nearly 700 teams from 33 countries participating in the Championship.

In the first district competition of the season, the Fighting Robovikings took first place and won the prestigious Judge's Award. The Judge's Award goes to the team that displays, "...unique efforts, performance, or dynamics [which] merit recognition". The Robovikings' competitive performance, outreach efforts, gracious professionalism, and well-designed robot clinched them this award! The Robovikings then placed as one of the top teams at both the Seneca and Lehigh competitions.

Go Fighting Robovikings!



UPCOMING EVENTS

Spring Soiree

Details for this year's Spring Soiree will be sent out soon!



Volunteer to Present a Certificate of Merit at a Local High School

Philadelphia SWE volunteers are needed for our Certificate of Merit presentations at local high schools. Certificate of Merit awards honor Philadelphia area high school women with outstanding achievement in STEM courses, providing them with recognition and encouragement to pursue careers in STEM fields. Philadelphia SWE members are requested at the following end-of-year awards ceremonies. Please contact Certificate of Merit Chair Mariah Cushman (mecushman@gmail.com) if you can help!

- Abington Senior High School, Warrington
 - 5/11/17 at 7pm
- Nazareth Academy High School, Philadelphia
 - 5/24/17 at 7pm
- Central Bucks High School South, Abington
 - 5/25/17 at 7pm
- Plymouth Whitemarsh High School, Plymouth Meeting
 - 5/30/17 at 7pm

Volunteers Needed at Tech Trek Camp

The American Association of University Women (AAUW) is hosting a Tech Trek Camp at Stockton University in Galloway, NJ in July 2017. They are in need of volunteers, either participants or assistants, for their Professional Women's Night. The goal of this evening will be to inspire the camp girls to continue their education in STEM fields and to expose them to the many careers that are available.

Date: Thursday, July 20, 2017

When: 6 - 9:30 pm

Where: Stockton University

Volunteer to be a participant or an assistant today. For more information on the event, please email Dottie Pearson at pearson@princeton.edu.

PREVIOUS EVENTS

Underground Philadelphia Tour

On April 22, 2017, Philadelphia SWE had a fantastic time learning about the history of the Philadelphia Railways and Subway systems. The tour began at 30th Street Station, followed by a trolley ride to 19th Street, and ended at Jefferson Station near Reading Terminal Market. The intricacies of the Philadelphia Railway system were awe-inspiring and design is all the more impressive considering the need to back out trains and also account for the Schuylkill River. The tour guide also suggested the following book for those interested in learning more about Railway systems, *Conquering Gotham - Building Penn Station and Its Tunnels*.



MEMBER NEWS

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

OFFICER CONTACT LISTING

FY17 Elected Officers	Name	Email
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UPCOMING EVENTS

	FY18 Philadelphia SWE Elections
TBA	Spring Soiree



Search SWE Philadelphia



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, demonstrating the value of diversity

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