

**swe** NEXT

## Welcome Back!

Hi everyone! Welcome to another year of SWENext! I'm Eleonora Chakraborty and I'll be the SWENext Newsletter coordinator for the 2019-2020 school year. A little bit about myself—I graduated from Purdue University in Biomedical Engineering and now I work in the medical device industry in Chicago, IL. In my free time, I love to go to festivals around town and go sailing (when the weather and Lake Michigan cooperates).



This year we will be featuring a different engineering discipline each month, where professional women will give insights of their engineering career. My hope is to expose you to the ways engineering affects our daily lives and in turn, to help you discover new interests in the engineering field. Cheers to a great school year!

Have you heard the news? SWENext just launched a new fan page on Facebook!

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## What is Civil Engineering?

The next time you drive around town, take a drink of water or watch TV, take a moment to thank a Civil Engineer. Civil Engineers build the world around us; they design the roads you travel, the bridges you cross and the buildings you enter. They are also credited with protecting our environment, such as designing water treatment systems, building power grids and constructing recycling plants.

[Learn more about what Civil Engineers do.](#)

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## Day in the Life of a Civil Engineer

Meet Eileen M Velez Vega, PE, a Civil Engineer with Kimley-Horn Puerto Rick, LLC. She is also very involved in SWE in her area. [Find out how she got there](#), the types of project she's working on, and how you can #BeThatEngineer on SWE's All Together Blog.



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## National Hispanic Heritage Month

September 15 through October 15 is National Hispanic History Month! We are featuring four Hispanic engineering professionals who work in various industries. Let's meet them!

### **Bianca McCartt**

B.S. Mechanical Engineering, University of Kentucky  
Technical Talent Development Leader, Supply Chain Division with GE Aviation in Cincinnati, Ohio  
SWE role: SWE Latinos Affinity Group co-lead

Bianca is an experienced engineering professional known for her open communication style, creative ideas and passion for diversity. She has developed expertise in turbine airfoils, systems integration, structural design and program management. She is a continuous learner who enjoys mentoring and inspiring others to be open to discovery with a sense of adventure.



During her time at University of Kentucky, she started a solar car racing team when she was a sophomore. She also got involved in research and took advantage of the opportunity to co-op with a local company in Kentucky. Through a SWE Conference, she found a position at GE Aviation on the Edison Engineering Development Program and has now been with the company for 15 years in many different roles.

She has a lot of hobbies, including SWE! She loves to scuba dive, make art, write, read and learn, study Spanish, travel (especially to Costa Rica where her family is from), and ride horses.

### **Ivelisse Del Valle Figueroa**

B.S. Mechanical Engineering, University of Puerto Rico- Mayaguez  
M.S. Mechanical Engineering, Auburn University



Principal Mechanical Engineer with Northrop Grumman in Chicago, Illinois  
SWE role: Leadership Coach, Professional Development Lead of the Latinos Affinity Group.

Ivelisse was born and raised in Puerto Rico. Growing up, she loved math and physics, so she went into engineering. She joined SWE during her second year of college and held the roles of Secretary and President.

When Ivelisse graduated she decided to try something completely different. She enrolled in the Miss Puerto Rico Universe 2008 pageant. Participating in the pageant required Ivelisse to prioritize two things when selecting her first engineering job: the job had to be in Puerto Rico and it had to provide her with the flexibility to prepare for the pageant. These requirements are what led her to work as a Lecturer Professor at Universidad del Turabo.

Since then, Ivelisse has gotten over ten years of experience in electronic packaging design. She has worked for Raytheon, Honeywell Aerospace, and Knowles Corporation. At Knowles, she obtained two patents. Ivelisse now works for Northrop Grumman.

When you meet Ivelisse, you will quickly learn that she can talk all day about beauty pageants, flamenco and genealogy. She loves to read and listen to audiobooks and lives in Illinois with her husband and three-year-old son.

### **Claudia Galván**

B.S. Computer Science, Universidad Anahuac  
M.S. Program and Project Management, Golden Gate University  
Doctor of Education, Educational Leadership and Administration, Drexel University  
Technical Advisor for Early Stage Innovation  
SWE role: Leader of the Diversity and Inclusion Affinity Groups

Claudia is an award-winning leader in Silicon Valley. She has led global product development at Oracle, Adobe and Microsoft reaching billions of people around the world.



Growing up in Mexico, she decided to go into engineering when a Software Engineer came to her high school to present. She had a natural ability for programming and became a teaching assistant in college. She ended up graduating first in her class.

Claudia moved to Canada where she joined a startup company. The company was acquired by an American company, and she relocated to the United States. She continued to grow in the organization and held the most senior-level engineering position for a Latina woman in engineering in a Fortune 500 company.

Claudia is a community leader and volunteer. She teaches girls about engineering and computer science, she mentors young women in the engineering field and she volunteers at a woman's homeless shelter. Her community involvement has been recognized naming her Silicon Valley Woman of Influence.

She is an empty nester, enjoys hiking, travel and solving math puzzles. She is a regular presenter at technical conferences, and she loves engineering and feels she has not worked a day in her life.



**Lorna Holt**

B.S. Biological and Environmental Engineering,  
Cornell University  
MBA, University of Redlands  
Engineer with SoCalGas in California  
SWE role: Affinity Group Co-Lead; Members at Large  
Newsletter editor

Lorna has a passion to be part of projects that synergize biology and engineering. As an engineer at SoCalGas, she works in the renewable energy sector, where her company develops renewable natural gas called biomass from sources like dairies and waste.

She initially wanted to have a career in nanotechnology, possibly building tiny machines to help processes in the human body. However, she ended up switching her major to Biological Engineering as she became interested in how energy could be developed from biological processes.

When Lorna first came to the U.S. from Panama, it was difficult for her to express herself due to the language barrier. She turned to her science books, as the books allowed her to explore the universe with no barrier to hold her back.

In her free time, Lorna sings in a choir and acts in community theater. Additionally, she practices Shotokan karate. She aspires to do animation voiceover work in the near future. She partly credits watching cartoons as how she learned English as a child.

**[See Lorna's Meet an Engineer video on the SWENext YouTube Channel.](#)**

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## Thanks to the Seniors!

Thanks to the 243 senior SWENexters who responded to our Senior Survey last June. We learned a lot about what you plan to study and which colleges you are going to. 87% of you plan to study engineering or computer science, and of those, 97% of you are likely to join SWE in college. We can't wait to see you on campus!

Congratulations to the five winners of the raffle who were picked at random. They are Vincenzia Vargo, Kayla Brown, Trisha Sullivan, Grace Parmer and Carmen Resnick. They will each receive a \$50 gift card!

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## How Do I Start a SWENext Club?

A SWENext Club is a great way to share your love of science and engineering with other students like you. And it's a great way to get involved with the Society of Women Engineers as a high school student. Here are some tips on how to get started with a SWENext Club:

- **Check** if there is a local club in your school or community.
  - Find a SWE Advisor for your club. This is a SWE member who could be your teacher or an engineer in your community. You can also reach out to your **local SWE section**. Can't find a SWE member? Reach out to [swenext@swe.org](mailto:swenext@swe.org) and we'll help you!
  - Once you have a SWE Advisor, make sure to **register** your SWENext Club.
  - **Reach out** to local SWENexters for support/club ideas.
  - SWENext doesn't have to be a brand new club. If you are already in a club like FIRST or Girl Scouts, these can be SWENext Clubs too! Just register them with SWENext!
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## SWENext Awards Season Has Begun!

We like celebrating awesome SWENexters because it inspires us! And we want to recognize your leadership, your successes in the community and how you help other girls develop an engineering identity.

The following awards will be given out at SWE's annual conference, WE19, in Anaheim California, on November 8 and 9, 2019.

### **SWENext Northrop Grumman Community Award**

**Eligible:** Grades 9, 10, and 11 (in Fall 2019)

**What you have to do:** Create a poster that answers the questions: How do we get more female middle school and high school students involved with STEM? How do we

encourage these students to stick with STEM as they plan for college?

**What you can win:** Participation in the Community Award poster presentation where the winners will present their posters to middle school girls, parents, educators and professional engineers. Also, participation in the SWENext High School Leadership Academy and Invent It. Build It.

**Deadline: September 23rd** – Apply now!

Also, one SWENexter will be announced as a “SWENext Influencer” in mid to late October.

[Check out the Benefits and Application here.](#)

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## Learn How to Be A Leader at the SWENext High School Leadership Academy!

Take the next step into leadership with SWE!

The SWENext High School Leadership Academy (SHLA) is a two-day program taking place at the Annual SWE Conference in **Anaheim, California, on November 8 and 9, 2019**. The program provides high school students with leadership training, college advice and the opportunity to experience the SWE community first-hand.

*(\*Note: Awards/Club Challenge applicants do not need to apply to SHLA through this application. This application is for those interested in attending the Leadership Academy but not interested in applying for the awards.)*

**Eligible:** High school students who identify as female

**What you have to do:** Tell us about your STEM activities and leadership roles

**What you can win:** Participation in the SWENext High School Leadership Academy and Invent It. Build It.

**Application Deadline: October 14th** – Apply now!

[Check out the Benefits and Application here.](#)

Questions? Contact [sabrena.lopez@swe.org](mailto:sabrena.lopez@swe.org).

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## #SWENextChallenge - September Edition!

School is starting again! High school can be both a fun and challenging time. Some of you are just starting off and have an exciting four years ahead of you. Others are preparing to apply to college and begin the next phase of life. No matter what grade you're in, it's good to have goals for the year, both in your academic life and your extracurricular life.

This month's #SWENextChallenge:

**What would you like to accomplish, academically or in extracurricular activities, at school this year?**

To enter this month's challenge:

1. Make sure to follow @SWENext on Instagram (if you're not already!).
2. Post a photo or video to your own account with a caption that explains your submission, answering the question.
3. Mention us (@SWENext) and use the hashtag #SWENextChallenge in your caption.

Make sure to post before the challenge ends on September 27 (12pm CT). The winning SWENexter will be announced by September 30 and will receive a \$25 gift card.

**[Congratulations to Aimee Xu, the winner of the June Social Media Challenge.](#)**

**[Congratulations to Fortune Somuadina, the winner of the August Social Media Challenge.](#)**



130 East Randolph Street, Suite 3500  
Chicago, IL 60601  
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