

swe NEXT



Stay in the loop on SWENext DesignLab, enter engineering contest for cash prizes

Keeping up with SWENext DesignLab



Are you excited for the upcoming [SWENext DesignLab](#) season? This is a one-day engineering event that will take place during the five upcoming [WE Local conferences](#). Keep your eye on this section of the SWENext newsletter each month for SWENext DesignLab updates and announcements.

In the meantime, here's how you can get involved now!

[Apply for the SWENext Northrop Grumman Community Award in Tulsa before January 6, 2018 >>](#)

[Apply for the SWENext Local Innovator Award in all five SWENext DesignLab cities >>](#)

The deadline for submissions to be considered for the Tulsa award is January 6, 2018.

Micro-grant Alert

SWE plans to award \$25,000 in micro-grants to support the participation of SWENexters in [eCYBERMISSION](#), which is a web-based STEM competition for teams of at least 3-4 students in grades 6-9. Register by **December 13** as an [eCYBERMISSION](#) team and stay tuned for a SWE email announcing the grant!

[Register Today >>](#)

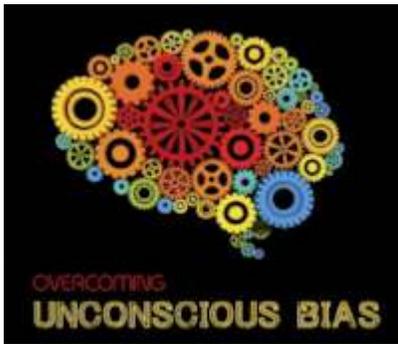
Day in the Life of Biomedical Engineer Amanda Edwards

Biomedical Engineering combines the design and problem solving skills of engineering with medical biological sciences to advance health care treatment, including diagnosis, monitoring, and therapy.

Amanda Edwards is finishing her Ph.D. in Biomedical Engineering at Johns Hopkins School of Medicine. Find out more about her research, how she got to where she is now, and how you can #BeThatEngineer on [SWE's All Together Blog](#).



Amanda setting up the Kinarm exoskeleton robot for an experiment.



Unconscious Bias

Have you ever felt discouraged from pursuing an interest in a STEM field? Have you ever noticed girls being treated differently than guys? What's going on here? You're experiencing what is known as unconscious (aka implicit) bias. Read on to learn more about unconscious bias.

In today's world it is much more common than it was previously for women to have careers – especially in a STEM field. In the past men went off to work in offices or factories while women stayed at home. Although we've come a long way, many people naturally assume what roles men and women will play in society, often making it difficult or discouraging for women to seek anything else. This is why women are still outnumbered in STEM fields.

These opinions may be held by well-intentioned people who strive to promote equality and are completely unaware of their subconscious biases. This may lead to scenarios where a man gets a promotion over an equally or more deserving woman. This may also lead to unfair differences in perceptions of men and women in the same scenario. For example, a woman who takes charge can be perceived as bossy and annoying while a man who takes charge is seen as confident and proactive. The fact that these biases are subconscious makes it harder to identify and combat them, so we need to train ourselves to notice the signs and actively work to see passed them.

Implicit biases can affect people of all races, genders, sexual orientations, or physical abilities, so it is important that everyone takes care to discover and overcome their subconscious stereotypes.

Here are a few articles that explain more about unconscious bias:

- [Unconscious Bias](#)
- [Think You're Not Biased Against Women At Work? Read This](#)

You can also [take a quiz to discover what biases you may hold](#). Under Project Implicit Social Attitudes, click on "continue as a guest", then click "I wish to proceed", and select the Gender-Science IAT test to see how you view science in terms of gender.

SWENext Global Innovator Award Recipient

Congratulations to Alisha Mirapuri, one of the 2017 recipients of the Global Innovator Award! Alisha has developed a passion for computer science and has dedicated much of her time to help bring that passion to others in her community. Meet Alisha and learn

more about how she's promoted engineering in her community.



2018 EngineerGirl Writing Contest – Engineering for Your Community

Every year, the EngineerGirl website sponsors a contest dealing with engineering and its impact on our world. This year's contest focuses on convincing others to improve your community's infrastructure.



High school students are asked to write a summary report for their city or county council that makes the case for an infrastructure improvement in your community and your chosen solution to the problem. Fully define the problem and describe your solution in detail, including how and why it should be implemented. Explain what has already been tried or is already known about this type of solution and what would be new or innovative in your community. Describe how you will test or anticipate failure for any new innovations to minimize risk. Submissions must be 1000 to 1500 words. The first-place winner will be awarded \$500, the second-place entry will be awarded \$250, and the third-place entry will be awarded \$100. **The deadline to submit is February 1, 2018.**

[Visit here for more details on the contest.](#)



SWENext Social Media Challenge

An engineer can design a flashy product with innovative features, but people won't fully enjoy it unless it's ergonomic, or comfortable to use. Are there any really cool devices in your home that are ergonomic and pleasant to use? Share them with us on Facebook by telling us what they're used for and how they make your life easier! Submit your #SWENext #CoolDevice photo by sharing it in our [SWENext Facebook Group](#) by November 30. The winning SWENexter will receive some fabulous SWENext swag!

Here's an example: Erica is currently working as a quality engineer at Merck and sometimes spends extended periods of time at her desk. Having a computer workstation that is ergonomic is important for her, and she loves her wireless mouse. It's comfortable for her hand and doesn't get caught on anything!

Not a Member of our Closed SWENext Facebook Group?

It's easy to sign up! Just [visit here](#) and click "Join". This is a closed group for SWENexters in high school and collegiate SWE members, to discuss college readiness, being a woman in a male-dominated field, and the benefits of being a part of SWE (and to participate in contests!).



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