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## Woman To Woman, February 2017 Edition

1 message

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## February 2017 Edition

[#TechInService2Society](#)

The Women in Engineering, Science, Technology and Math (WESTM) initiative at School of Engineering consist of administrators and faculty members at NYU Tandon School of Engineering committed to the advancement of women in STEM. The goal of WESTM is to: increase recruitment, retention, and success of women through a wide range of programs, services and activities geared towards building a supportive environment of and for women; and cultivate and showcase women to be leaders in the transformation of Science, Technology, Engineering and Math locally and globally.

To date, WESTM has spearheaded many new initiatives including the Women in Engineering, Science, Technology, and Math Explorations Community, the WoMentorship Program and the Women to Women Newsletter. To find out more about SOE's efforts to attract a new generation of bright, curious women to the vital, life-changing field of science, technology, engineering, and math (STEM) and end the gender gap in STEM studies, visit the NYU Tandon School of

Engineering [Women in Engineering](#) site.

## Upcoming Events: Current Students



### Gilman Award Opportunity

Are you interested in studying abroad but not sure if you can afford it? If so, the [Gilman Award](#) could be a helpful solution. The Gilman Scholarship Program is an undergraduate grant program for U.S. citizens of limited financial means to enable them to study abroad, thereby internationalizing their outlook and better preparing them to thrive in the global economy.

Contact [uga.engineering@nyu.edu](mailto:uga.engineering@nyu.edu) with questions or concerns.

## Community Updates

### NYU Tandon School of Engineering Newest Female Faculty Members

#### Anna Choromanska: What the Human Brain Can't Tackle

The term modern-day Renaissance woman might well have been coined to describe Anna Choromanska, a new assistant professor in the Department of Electrical and Computer Engineering. A graduate of Warsaw's Mieczyslaw Karłowicz Music School, she has played the piano since the age of six; is multilingual; is also an accomplished visual artist who holds a diploma in painting from the Warsaw School of the Arts; and is training in salsa dancing and appearing on stage with the Ache Performance Project of Frankie Martinez, one of the greatest and most revolutionary salsa performers and choreographers of our time. And if all that wasn't enough, she also happens to have been a Fu Foundation School of Engineering and Applied



Science Presidential Fellowship holder at Columbia University, where she earned her doctoral degree in electrical engineering in 2014.

After graduating from Columbia, Choromanska became a postdoctoral researcher at NYU's Courant Institute, where she focused on the branch of machine learning known as deep learning, which seeks to formulate algorithms and computational models that will enable computers to work and solve tasks that the human brain can tackle – but that computers, so far, cannot. “There are many practical applications for deep learning, such as autonomous driving” she explains. “My research is aimed at providing a theoretical understanding but also expanding the set of practical problems that can be solved with computers.” She is extremely interested in large-scale machine learning problems (e.g. problems arising when having access to massive data sets or large computational models) and various branches of machine learning – among them the aforementioned deep learning, but also massive classification problems (classifying objects such as images into one or few out of millions of categories very fast) and more. “Big data and big models are everywhere nowadays, so we need to seek new tools to scale machine learning to this large-scale world we live in,” she says.

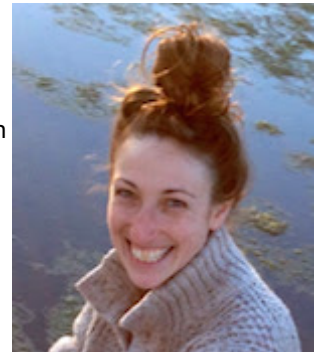
Choromanska hails from a family of researchers; both of her parents are university professors, and her brother holds a research position at Google in New York. She arrives at the Department of Electrical and Computer Engineering already deeply familiar with its workings: her husband, Mariusz Bojarski, was until recently a postdoctoral fellow in the department, focusing on wireless power transfer. (He also served as CTO for HEVO, a Tandon incubator company developing wireless charging stations for electric cars, and he is now working on the future of autonomous cars at NVIDIA.)

While Choromanska anticipates being very busy in her classroom and lab, we can only hope that on occasion she'll put the piano outside Pfizer to very good use.

### **Andrea Silverman: Engineering Clean Water for the World**

“Engineers who design water and wastewater treatment systems should understand the characteristics of waterborne microbial and chemical contaminants that present public health risks, and how those characteristics effect treatment efficiency,” Assistant Professor of Civil and Urban Engineering Andrea Silverman says. “Similarly, public health professionals who focus on water-related illnesses should have a good understanding of the benefits and limitations of technologies used to treat water and assure its safety.”

Silverman, whose research focuses on the detection and control of waterborne pathogens that cause gastrointestinal illnesses, has a joint appointment to NYU's College of Global Public Health. She is thus looking forward to bringing together students from both schools at her Brooklyn-based environmental engineering lab and hopes to put them to work on collaborative projects with real-world applications.



Since earning her undergraduate degree in environmental engineering from MIT and her master's and doctoral degrees in the same field from the University of California, Berkeley, Silverman has studied disinfection processes (including the major role that sunlight plays) in natural wastewater treatment systems, such as manmade treatment ponds and wetlands designed specifically to treat sewage; she uses her findings to develop numerical models to predict disinfection rates – a boon to those designing sustainable sanitation systems that meet health-based disinfection goals. It's important for researchers to get out in the field, she asserts, and her newest area of study involves examining bacterial pathogens in sewage, which have proven to be more resilient to treatment than lab-based organisms.

Silverman, who has worked in Kenya and Ghana, was born and raised in New York and is enthusiastic about the research possibilities posed by her densely populated hometown. “New York is a huge city that is able to provide high quality water and sanitation services to millions of people,” she explains. “There are a lot of lessons to be learned from New York's successes, as well as opportunities for improving wastewater treatment and storm water management.”

### **Julia Robinson-Surry: Good Chemistry**

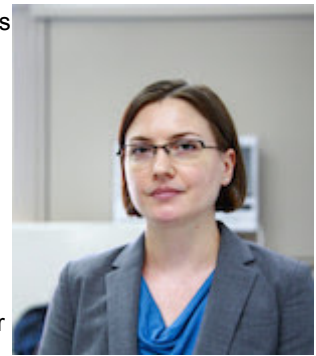
Julia Robinson-Surry does not promise that the required undergraduate chemistry course she is teaching will be easy. It will, however, be vital. "We will cover all the important general chemistry topics an aspiring engineer needs to know in the space of a semester," she says.

The new industry assistant professor realizes that that prospect might seem daunting but wants her students to know that she is there to help. "I hope that they'll come to see me as soon as they feel they're running into trouble, so we can get to the root of it. I don't want them to feel intimidated or lost."

Robinson-Surry has ample experience with young learners. Before becoming a faculty member at St. John's University (the post she held prior to joining Tandon), she taught chemistry at Bard High School Early College Queens in a program that allows teens to earn associate's degrees while still in high school. "It was a valuable and unique experience teaching in the New York City Department of Education system," she says. "That's not something a lot of professors get to do, and it gave me a good perspective on how incoming college freshman think and learn, since I taught students just entering that stage."

Robinson-Surry's own student days were not so long ago. In 2011 she earned her doctoral degree in organic chemistry from the Massachusetts Institute of Technology, where she garnered numerous laurels, including a National Science Foundation Graduate Research Fellowship (2007-10); an AstraZeneca Graduate Fellowship in Organic Chemistry (2009); an MIT Wyeth Scholar designation (2010); and a David A. Johnson Graduate Fellowship. Prior to that, at Reed College, in Oregon, she had been the recipient of a Barry M. Goldwater Scholarship, considered among the most prestigious awards conferred upon undergraduates studying the sciences in the U.S.

It was a short leap from conscientious student to dedicated teacher. "Even if I'm lecturing in a packed hall," she says, "it's very important to me that each and every student absorb the material and understand how it relates to their chosen major or field of study."



## Wasserman Center for Career Development Updates

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# Get free insights (and food)

Monday, February 13<sup>th</sup> at 11:00AM  
NYU - 6 MetroTech Center (Outside of Cafeteria)

We're rolling out the purple carpet for YOU! Join us to get insight into Yahoo's products and learn about career opportunities. We will have amazing snacks, swag, and an exclusive raffle prize! Don't miss out and remember to bring your resume!  
RSVP on CareerNet: Yahoo Meet Up

Wasserman Center  
for Career Development

[Yahoo Meet Up](#)

**February 13, 11 AM - 2 PM | 6 MetroTech (Tabling outside cafeteria)**

Join Yahoo for the opportunity to get insights by engaging with Yahoo professionals and learn more about the company, potential job & internship opportunities. There will also be free donuts and coffee! [RSVP](#)

[How to Get Into a Top Startup](#)**February 22, 5 PM - 6:30 PM | Leslie eLab (16 Washington Place)**

Are you looking to get into a top, venture-backed startup? Not sure how to start and what advice to follow? Master career strategist and coach Yuri Kruman, Founder and CEO of Master The Talk Career Consulting, will cut through all the conflicting career advice you may have heard, sharing his perspective on what it takes to identify, compete for, and win your dream job at a top startup (and negotiate a higher salary, better benefits, title and perks). As a result of attending this seminar, you will gain industry insight on how to chart your blueprint to your dream job in a startup. [RSVP](#)

[Speed Networking: Women in the Workplace](#)**March 8, 1 PM - 3 PM | Wasserman Center (133 E 13th St. 2nd Floor)**

Are you interested in learning how to leverage your identity as a woman to explore career opportunities including internships/full-time, opportunities for mentorship, or uncovering hidden resources to help you get ahead and define your brand? This unique program consists of round-table discussions in which you'll have the chance to network with and learn from various industry professionals. This program is part of the Wasserman Center's Women's Herstory Month series. Light refreshments and snacks will be provided! [RSVP](#)

[TorchTalks: "Shattering Your Glass Ceiling"](#)**March 30, 12 PM - 2 PM | Wasserman Center (133 E 13th St. 2nd Floor)**

Ever feel like there's a glass ceiling above you preventing you from being your best self personally or professionally? Through personal anecdotes and innovative ideas, successful female professionals who have shattered their own glass ceiling will impart their knowledge with NYU students during this dynamic series of short talks modeled after "Ted Talks". This program is part of the Wasserman Center's Women's Herstory Month series. Light refreshments and snacks will be provided! [RSVP](#)

[STEM-a-Palooza with PwC](#)**March 3, 11 AM - 2 PM | Brooklyn, MakerSpace Event Space in Rogers Hall**

Join PwC to discover why STEM is so important to PwC! This program focuses on the latest and greatest technology PwC has to offer. Involving different stations, expose yourself to networking opportunities, participate in a Data Analytics hunt, and take a tour of our Virtual Reality platform. Undergraduate and first-year graduate students studying areas related to STEM are strongly encouraged to attend. Light food and refreshments will be provided. [RSVP](#)

## Faculty Spotlight



## Victoria Bill

### ***Tell us a little bit about yourself.***

I received my bachelor's in electrical engineering from The Ohio State University and my master's in EE from the University of Texas at Austin, with a focus in electromagnetics and acoustics. Before joining NYU as the MakerSpace manager, I worked at Cooper Union as Student Programs Coordinator and started a makerspace there. I also worked as an adjunct professor at NYU Tandon, Cooper Union, and New York City College of Technology.

I believe that students and users of makerspaces often find strong internal motivation for their projects and direction. I think makerspaces can have a huge impact in engineering education by encouraging creativity and fostering design and construction experience. I was motivated to become the MakerSpace Manager to make a positive impact on the students and space here at NYU.

### ***What are your areas of research?***

My research areas are engineering education, makerspace design and assessment, wearable technology, antenna design, embedded systems, and IoT

### ***What do you enjoy most about teaching at NYU Tandon SoE?***

I most enjoy meeting and teaching a very diverse set of people. The students here come from NYC and all over the world. They all have very different backgrounds and all bring a very unique and interesting perspective to the work they are doing and the problems we are facing in the world as engineers.

***What advice can you offer the women students?***

I always advise students to take advantage of the opportunities and the network here. As an engineering undergraduate student, I was sometimes unsure of getting involved, attending a workshop, or speaking to a professor, but those are often the best ways to find your interests and passion. I encourage any of the women students to come into the MakerSpace and use the resources that are here for them!