

SPRING 2018 ISSUE

RPI ENGINEERING AMBASSADORS

ALUMNI NEWSLETTER

A Letter From Our E-Board

Hello,

My name is Jennifer Vincent, and I am the current Operations Coordinator of the RPI Engineering ambassadors. I am pursuing a bachelor's degree in Biomedical Engineering with my concentration in biomechanics. I am excited for the start of 2018 and the changes to come within the organization.

As an organization, we are working to continue expanding our outreach efforts with the addition of a new program. This academic year we began working with a newly developed not-for-profit, Rise-High <http://rise-high.org/> a Schenectady Youth Saturday AM STEM program. Rise High is beginning by involving 6th grade students and each year they will add another cohort eventually building the program out to include 6 – 12 grade students. The RPI EAs will be supporting a portion of the curriculum each semester. This is an exciting program and we are pleased to be a part of it. In addition to this new program, a group of engineering ambassadors also traveled to the Bronx this year. On this trip they were able to reach out to even more students than the previous year and continue to increase our outreach efforts.

As an organization, we also hope to strengthen our bond with alumni. We would love to provide resources to help you continue your outreach efforts while hoping to draw on your expertise to help mentor, guide, and support our current EAs and the engineers of tomorrow.

Lastly, I would like to thank all of you for your past contributions to the organization. Without you and your efforts the organization would not be what it is today! We have been able to accomplish great things by building upon your hard work. This includes the addition of many new outreach programs which have expanded our radius far beyond what we could have imagined. None of this would be possible without your contributions as RPI EA's. Thank you!



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MEMBER SPOTLIGHT



Kianna Brevig

Major: Electrical Engineering

Hometown: San Diego, CA

Presentations: Future of Flight and Wind Energy

2017 Summer Internship: I worked at Pratt and Whitney in East Hartford, CT I was an intern in the Systems Engineering & Validation department working with telemetry and developing products in that area

2018 Full Time Position: I will be working for Solar Turbines which is located in San Diego, CA. I will be involved in the rotational program and will be focusing on working on project engineering

Favorite part of EA: My favorite part about EA is that through creating outreach presentations for younger kids, I have learned more about certain areas of my major than I ever would of in a classroom. I was also able to share my passions with younger kids and I feel as though I was able to inspire them.



Parth Bhide

Major: Chemical Engineering

Hometown: East Greenbush, NY

Presentations: Polymer Engineering, Thermoelectric Devices, Fluid Dynamics

Research at RPI: Kinetics of DNA-based Nanoscale Photolithography. The goal of the research is to study the feasibility of using DNA binding to a surface as a means to print surfaces with nanoscale resolutions.

Favorite part of EA: My favorite part of EA is sharing my love of science and engineering to others who may never have been exposed to it. Having the ability to open someone's eyes to something they may never have considered fun or enjoyable is extremely gratifying.

Statistics

Fall 2017

- Total Schools - 9
- Total Students - 3,240

Spring 2018 (Projected)

- Total Schools - 10
- Total Students—3,350

Total Students Reached: 7,155 (11.3 % of total middle/high school enrollment in Capital District)



THE BRONX

This winter break the Engineering Ambassadors had the privilege to travel down to the Bronx and spread their knowledge of STEM to the boys and girls of St. Raymond High School. The trip was spearheaded by our own Vladimir Ramos. All the EA's had a great time and Vlad had this to say about the trip,

“I wanted to set up the Bronx visit to my homeschool because I felt that growing up I had no clue as to what engineering meant. I wanted the minority kids in my neighborhood to not be afraid of pursuing engineering because of all the stereotypes that the engineering degree has such as needing to be a genius in math and science in order to be successful. The visit itself was amazing. After the presentations the students were asking questions that I've never heard on a visit before such as: ‘How was the college application process for you’, ‘How much do engineers make,’ ‘What was your hardest class.’ The students were also really engaged and after one of my Jet Engines presentations one of them told me “You make engineering sound so cool” that is probably my proudest moment being an EA.”

Along with all the school visit fun, our EA's also found time to enjoy New York City and even went skating at Rockefeller Center. During this week long school visit we were able to reach more than 1,500 students and it was a rewarding and exciting experience!



RISE HIGH

The Rise High 6th grade Energy team broke topics into three categories: Thermal Energy, Mechanical Energy, and Electrical Energy. The first two weeks built upon each other to prepare the sixth grade students for a final project on the third week. The Mechanical Energy team taught the basics of potential and kinetic energy, emphasizing hands on demos regarding turbine blades the various ways to generate energy. The Thermal Energy team also built upon this with lab demos using homemade boilers to generate steam. Finally, the Electrical team emphasized the basics of circuits and the differences between series and parallel.

All these concepts were combined to use the student's own turbines (whether steam, hydroelectric, or wind) to light up a miniature city, as indicated by LEDs. The students then presented on their results. The program was a great success, and the students not only seemed to take in all the information, but also came out of their shy shells and engaged together as a group.



ALUMNI UPDATES

Jeffery Morton

Background: Jeffrey graduated from RPI in December of 2014 with his BS and MEng in Mechanical Engineering. He was active with Engineering Ambassadors from its start at RPI in the spring of 2011 through graduation in 2014. He helped develop the E-board structure while serving as the EA first president, and developed the initial Future of Light presentation and hands on activities



Hey everyone,

Upon graduating from RPI, I moved to Connecticut to work for Pratt and Whitney in Hot Section Engineering. I have been a part of the HSE FEDP rotation program and am in my final rotation of four. I have had the chance to work on both military and commercial products - everything from 60 year old engines to future fighter jet engines. I am currently the designer supporting the high pressure turbine blades for the engine powering the new Bombardier C Series aircraft and the Mitsubishi Regional Jet. Through my work I have been able to submit numerous US and European patents with coworkers which are pending. Outside of my role as a design engineer I also am co-lead of the HSE Innovation Employee Engagement Team and the professional chair for PW Emerging Professionals. I have stayed connected to RPI and EA as the secretary of the Hartford Chapter of the RPI Alumni Association and serving on the newly formed EA Alumni Board of the national network.

A year ago I started my MBA through an online program WPI runs for UTC employees and look forward to finishing in 2020. When I am not working on homework I continue to enjoy woodworking and have started working on and repairing antique clocks. I also enjoy travelling with my girlfriend Rebecca; last year visiting EA Christian Biederman (2013) while on vacation seeing San Francisco and Yosemite NP in CA. Keep up the good work!

-Jeffrey

RPI

Feeling Generous?

Simply Call RenXchange at 518-276-6055 and ask to donate to the Engineering Ambassadors fund directly. Engineering ambassadors is always willing to accept donations to help continue bringing the inspiring field of STEM to the youth.