Happy Spring!

RPI’s Engineering Ambassadors have been very busy this year. We have facilitated a number of outreach events, including school visits, STEM days, and community events on and off campus. Continuing to expand our reach within the capital region, we have taken advantage of new opportunities and added to our series of annual events.

With the conclusion of our recruitment season, our organization continues to grow. From a pool of 73 applicants, we have accepted 26 new ambassadors, our largest class yet. Presentation topics and partners are assigned, and we are looking forward to further developing new topics. Our Junior Ambassadors are already preparing for the annual conference, which will be held at WPI in the fall.

Our RISE HIGH program with the Schenectady School District continues to succeed. The growing program continues to expand; next year we will add modules for 8th grade students. With this addition, the program will include all middle school students. This is an exciting partnership, and we look forward to moving forward as the program continues to expand.

Through the past few semesters, we have worked on developing our Remote Engineering Ambassador Channel (REACH), an online resource designed to expand our current program beyond the Capital Region. Voice-over videos of our presentations are progressively being created and added to our website. Currently we have five presentations on our REACH channel, and we plan to continue adding presentations in the upcoming year.

As the academic year comes to a close, we have 14 seniors who are graduating and moving beyond RPI. While we are sad to see them go, we are excited to see all that the class of 2019 accomplishes! We thank them for their dedication and contribution to the organization.

Thank you to all our alumni for your continued support of the program and its efforts! We hope that this note finds you well and always love to hear from you.
**SPRING 2019 RECRUITMENT**

With increased support by our sponsors, Engineering Ambassadors is now able to support 62 members for the 2019-2020 season. Recruitment Coordinator Louis Caponi compared the general body of EA to the students enrolled in RPI’s School of Engineering in order to better reflect major, race, and gender distribution. He strengthened recruitment efforts by visiting more engineering classrooms, increasing campus exposure. The entire process was expedited, as offer letters were extending before spring break. This allowed for a more extensive and comprehensive onboarding process and gave Junior EAs more opportunities to shadow EA programs. Keeping in mind our values of passion, scholarship, and community, he identified 26 outstanding candidates who are committed to promoting our mission and are excited to attend the annual conference at WPI in September.

**MEMBER SPOTLIGHTS**

**RACHEL KOLVECK**  
Civil Engineering ’21  
“This semester I’ve been heading up Troy Prep where a group of Engineering Ambassadors visit a local school in Troy several Tuesdays to teach them about different topics. It’s great to see the same students on a regular basis to develop more of a connection with them! This summer I’ll be interning with the structural engineering company, McLaren Engineering Group.”

**EVAN NIELSON**  
Mechanical Engineering ’21  
“I’ve worked to redevelop the hands-on activity for the Math and Robotics research project to better promote programming and math skills in students. This summer I’ll be working a 12-week internship in the Propulsion Systems Analysis department at Pratt & Whitney.”

**ALYSSA BORGES**  
Mechanical & Aerospace Engineering ’20  
“I’ve recently been working on a new presentation with an RPI Professor involving a hands-on activity with virtual reality. Students will be able to learn about different drag forces acting on an airplane wing and then in a virtual reality headset change aspects of the wing and directly view its effect on viscous drag.”
The Bender Scientific Fund awarded us a grant to fund purchase of two electrocardiogram (ECG) machines and two electroencephalogram (EEG) machines. EAs have developed a presentation featuring these machines.

New Partnerships

This year we received $750 from Stewart’s Holiday Match program, which was used to develop equipment for our Math and Robotics program with Lansingburgh CSD.

The Empire State Aeroscience Museum has reached out and would like to build a partnership. RPI EA would share aeroscience-related topics during school visits and point to the museum as a resource for further exploration. We are working to develop this further!

The Bender Family Foundation

The Bender Scientific Fund awarded us a grant to fund purchase of two electrocardiogram (ECG) machines and two electroencephalogram (EEG) machines. EAs have developed a presentation featuring these machines.

BAE Systems

INSPIRED WORK

Recent EA Grad Tyler Brown initiated a partnership between RPI EA and BAE Systems in Endicott, NY. We are working out details and are excited about the new opportunities to come.

Thank you for your continued support!

Outreach Statistics

Between Fall 2018 and Spring 2019, we facilitated:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL VISITS</td>
<td>14</td>
</tr>
<tr>
<td>STEM DAYS AT RPI</td>
<td>7</td>
</tr>
<tr>
<td>TROY PREP VISITS</td>
<td>8</td>
</tr>
<tr>
<td>RISE HIGH SESSIONS</td>
<td>13</td>
</tr>
</tbody>
</table>

We’ve reached 7100 students this year, just over 11% of the total Middle School and High School enrollment in the Capital Region.

We have also participated in 20 outreach events on RPI’s campus and in the surrounding community.

During Winter Break, 17 EAs traveled to the Bronx on our third annual visit.
Alumni Letter: Jane Edgington ‘18

Following my graduation from RPI I spent my summer interning at Sandia National Laboratories in Livermore, California before starting my Ph.D. in chemical engineering at Northwestern University. I worked at Sandia on an exciting project investigating fundamental material behavior of battery electrodes. I loved spending my weekends exploring the Bay Area and the many surrounding State and National Parks. I moved to Uptown, Chicago in September and started my graduate classes at Northwestern. I joined Professor Linsey Seitz’ lab as her first graduate student, and am now enjoying setting up the lab and establishing a collaborative, supportive, and driven lab culture. Our lab specializes in developing and characterizing electrocatalysts and electrochemical technologies for clean, carbon-free production and use of chemical fuels.

Engineering Ambassadors was such an amazing part of my undergraduate experience and enabled me to positively impact younger students’ lives through my passion for engineering. Having come from socioeconomically humble roots, I always felt a strong connection to the work that EA does connecting low-income communities and underrepresented groups to engineering. Inspired by my experience with EA, I’ve continued to be involved in educational outreach at Northwestern. I spend my Saturdays volunteering at a community center with local middle school students in Evanston, Illinois, and mentor them through a variety of engineering challenges each week. I’d like to think that my prior experience through EA has enabled me to be the best mentor possible to my Saturday mentees.

Additionally, I’ll be joining an amazing mentoring program, imentor, this upcoming fall and cannot wait to get started. I’ll be paired with a student of color at a Chicago public school, and will commit three years to mentoring them through high school and graduation. I’ll be a resource to them for the college search and admissions process, prepare them for a successful and rewarding professional life following high school graduation, and be there to support them all along the way. EA opened my eyes in undergrad to my ability to affect positive change, however small, in younger students’ lives, and I’m looking forward to continuing my passion for educational outreach throughout my graduate career. Thank you EA and keep up the amazing work!

RPI Engineering Ambassadors is always accepting donations to fund our outreach. You can call RenXchange at (518)276-6055 and ask to donate to the Engineering Ambassadors Fund directly.

We are also always open to new company partnerships—please contact Elizabeth Herkenham (herkee2@rpi.edu) if you would like to collaborate on a new program!

Stay Connected!

@rpi_ea
RPI Engineering Ambassadors
engineeringambassadors.union.rpi.edu