

Pre-College Engineering Day 2019



CORPORATE LETTER

Dear Corporate/Organization Representative,

The Latin American Engineering Student Association (LAESA), a chapter of the Society of Hispanic Professionals Engineers (SHPE), is proud to announce the 25th annual Pre-College Engineering Day (PCED). This event is to be held on Friday, March 22, 2019 at the City College of New York. Our agenda includes workshops, lab tours, a team design project, and an engineering orientation session. We will be exposing the participating students to several different engineering disciplines and science research. The goal of PCED is to motivate students to pursue a STEM related career (Science, Technology, Engineering and Mathematics). We mainly cater minority students in the hopes of increasing their representation in these areas.

We would like to extend a warm invitation for your company to participate as a PCED official sponsor. As an official sponsor, you will benefit by promoting and profiling your company at this influential outreach event. Your contribution will help promote STEM in underrepresented communities and backgrounds. The students will be networking, exchanging ideas, and showcasing their own talents in competitions, all while being exposed to new information about engineering and what steps to take in order to begin the process of achieving a successful career in STEM. Attending this event will also allow you to meet with other professionals from various companies and proactive college students that go above and beyond the curriculum of the classroom to learn about team work, event coordination and organization, and what it takes to make a large event succeed. Along with these benefits, keep in mind that we are a non-profit organization listed under the 501(c)(3). Therefore, any provided funds may qualify to be tax exempt.

We look forward to speaking with you about your attendance/participation in this ongoing endeavor. If you have any questions, feel free to contact us at LAESA.PCED@gmail.com

Sincerely,

Christy Zhang, Yagmur Ozdemir & Geovanna Chavez
PCED 2019 Co-Directors

ABOUT LAESA-SHPE



Figure 1. Pre-College Engineering Day 2018 Attendees

LAESA-SHPE is the largest and most prominent undergraduate student organization at The City College of New York. In 1983, a group of dedicated students, with the goal to unite all Latino and other minority engineering students, share cultural ideas, and promote leadership, founded LAESA within City College. In 1986, LAESA joined forces with the Society of Hispanic Professional Engineers (SHPE) to better achieve their goals and connect with a larger body of professionals. This partnership has flourished over the years and today, LAESA is a firm supporter of the SHPE core values, while remaining true to its original mission. With over 150 members, LAESA-SHPE has been able to gather motivated students from all engineering disciplines and a diverse pool of cultural backgrounds. This dynamic group of students, alongside their highly supportive alumni members, has had many achievements at The City College of New York and within the community as a whole. Some of these accomplishments are listed below:

| <u>Yearly Programs</u> | <u>Conference and Awards</u> |
|---|---|
| <p><i>Academic Development & Leadership Programs</i></p> <ul style="list-style-type: none"> ▪ Developing Excellence in Academics and Leadership DEAL Program since 2000 ▪ Information Technology Program | <p><i>National Technical & Career Conference</i></p> <ul style="list-style-type: none"> ▪ Regional Chapter of the Year Award – 2003 ▪ Most Improved Chapter of the Year – 2002 ▪ Most Improved Chapter of the Year – 2002 |

| | |
|---|--|
| <ul style="list-style-type: none"> ▪ Blue Chip Award 2016-2017 <p><i>Community Programs & Events</i></p> <ul style="list-style-type: none"> ▪ Pre-College Engineering Day (PCED) - since 1995 ▪ New York Institute of Science, Technology, Engineering, & Mathematics (STEM) – participants since 2001 <p style="text-align: center;"><u>Leadership</u></p> <ul style="list-style-type: none"> ▪ Region IV Regional Student Representative 2004, 2003, 2001 ▪ Region IV Regional Student Representative 2004, 2003, 2001 ▪ Region IV Sub-Regional Student Representative 2006, 2000 ▪ SHPE National Student Representative 2005, 2004, 2001 ▪ ETCC Co-Chair 2000-2005 | <ul style="list-style-type: none"> ▪ 3rd Place Web Competition & Academic Olympiad – 2001 ▪ Most Improved Chapter of the Year – 2000 <p><i>Eastern Technical & Career Conference</i></p> <ul style="list-style-type: none"> ▪ 1st Place Website Competition – 2005 ▪ 2nd Place Technical Poster Competition 2005 ▪ The Pedro Ortiz Student Leadership Award - 2001 ▪ Most Promising Engineer Award – 2004, 2001 ▪ Professional Member Leadership Award - 2001 ▪ Regional Student Chapter Leadership Award -2000 ▪ New York City Professional Chapter President 2005, 2001, 2000, 2012 ▪ Club of the Year 2013 |
|---|--|

ABOUT PRE-COLLEGE ENGINEERING DAY

The idea of a Pre-College Engineering Day came about in the mid 1990’s. LAESA-SHPE’s members grew concerned with the increasing high school dropout rate of minorities and their low representation in the math, science, and engineering fields. LAESA-SHPE decided to take action, and in 1995, hosted the first annual Pre-College Engineering Day (PCED), an event formerly known as the High School Student Leadership Conference (HSSLC). Now, in its twenty-fifth year of operation, PCED continues to give students the tools needed for a successful college career in engineering and beyond.

PCED events started in 1995 and have continued on a yearly basis mostly because of the participation and economic support of the college, businesses, and organizations that believe in developing the young minds of today for a more promising tomorrow. We hope you to take a step in becoming an official sponsor of PCED 2019.



Figure 2. Keynote Speaker Ramona Ortega with PCED Students

The objectives for the 2019 PCED are to:

- Educate and empower students to pursue careers in science, technology, engineering and mathematics.
- Provide high school students with student and professional role models and facilitate their access to resources that our role models can provide.
- Promote leadership among college and high school students in order to increase Hispanic and other minority representation in the engineering fields.
- Educate students on energy systems, focusing on the design and construction of an electric car.
- Develop teamwork, communication, and interpersonal skills, and prepare students for a more productive, educational, and professional career.

PCED 2018 – WHAT DID YOU LIKE MOST ABOUT THE EVENT?

We received a lot of positive feedback from the students regarding the event.

- “We were able to see what the school is about and got to go more in depth by talking to students, professors and know more about the classes that are taught.”

- “I liked that I got the freedom and motivation to ask questions to people who have had the same experience as me as a youth teen.”
- “Me enseñó cosas nuevas.” (It taught me new things.)
- “What I liked best about the workshop was how interactive it was.”
- “I really liked how I was able to race against the clock to be able to make an efficient car that cost the least amount of money. The completion of the project was really fun.”

PROGRAM HIGHLIGHTS

PCED Schedule:

| | |
|---------------------|-------------------------------------|
| 8:30 AM – 9:30 AM | Registration, Continental Breakfast |
| 9:30 AM – 10:00 AM | Motivational Speaker |
| 10:00 AM – 12:15 PM | Workshops/Lab Tours |
| 12:15 PM – 1:00 PM | Lunch |
| 1:00 PM – 2:15 PM | Team Project |
| 2:15 PM – 2:45 PM | Team Project Judging |
| 2:45 PM – 3:00 PM | Closing Ceremony |



Figure 3. Students Eating Lunch and Networking with Other Schools

LAB TOURS

On the day of PCED, The City College of New York makes their engineering facilities and laboratories available for touring. Students visit various engineering departments including the Computer Science Department. The tours expose students to topics and challenges faced by each engineering discipline.



Figure 4. Manufacturing Lab Tour



Figure 5. Robotics Club Tour

Here are some of the lab tours that were offered for PCED 2018

- Manufacturing Lab
- Robotics Club
- Chemical Engineering Lab
- Zahn Center
- Micronano Technology
- NOAA-CREST Satellite Receiving Station
- NOAA-CREST Optical Remote Sensing Lab
- Laboratory for Cardiovascular Dynamics and Biomolecular Transport

WORKSHOPS

In this section of our program, our corporate and university sponsors appoint representatives to prepare interactive leadership workshops. Our purpose is to empower youth to exercise leadership within their schools and communities and achieve success in all facets of their lives. Workshops are proven to be effective in preparing young minorities for successful careers. Leadership is essential in enabling youth to develop character and values that promote the goal of higher education.



Figure 6. ARMY Workshop by Lieutenant Colonel Guessenhoven



Figure 7. Turner Construction Workshop

Here are some of the workshops that were offered for PCED 2018

- Verizon – “Life After High School, Explained”
- Credit Suisse – “Communication Skills”
- Army & Corps of Engineers
- Prof. Scheinberg – “Revolution of Technology”
- Turner – “Youth Force 2020 Scholarship”
- Vimeo – “You Can’t Get a Job Without Soft Skills”
- Siddiqui Engineering P.C. – “Why Engineering: Today’s Innovation and Technology Challenge”

To inquire about current availability of workshops or speaker opportunities please fill out the following form.

If you are interested in presenting a workshop at PCED 2018, please indicate the workshop topic you would like to cover and present a brief description of the workshop content and dynamics. For your reference we are interested in presenting students with workshops on the following topics:

- | | | |
|------------------------|-----------------------------|--------------------------------|
| ✓ Scholarships 101 | ✓ Leadership Skills | ✓ Time |
| ✓ How to get a 4.0 GPA | ✓ Challenges in Engineering | Management |
| ✓ Engineering 101 | ✓ Setting Career Goals | ✓ Tips for Success |
| ✓ Career Paths | ✓ Communication Skills | ✓ Company Information Sessions |

Title of Workshop: _____

Presenter: _____

Description of Workshop: _____

TEAM PROJECT

PCED strives to instill the concepts of teamwork and leadership as key tools for success. Productivity in the workplace heavily relies on the leadership and teamwork abilities amongst employees. We would like for these students to practice these skills. One of the highlights of the PCED program is the team project in which students discover practical ways to reach out to team members and distribute work. Students are divided into groups and instructed to design a solution to a given engineering problem. In order to enhance the dynamics of the team and to improve networking skills, everyone is placed with students from other schools. At the end of the session, projects are judged (according to specifications) and prizes are awarded to each team member. Prizes for the team project are typically educational/organizational tools; for example, graphing calculators, USB flash drives, and bookstore gift certificates.

Project Cost:

| | |
|--|-------------|
| Team Design Competition Materials | \$700-\$800 |
| Students' Prizes – 10 students per team | |
| 1 st Place – Amazon Tablets | \$500 |
| 2 nd Place – Lintelek Smart Watch | \$300 |
| 3 rd Place – Bluetooth Headphones | \$200 |



Figure 8. Students Racing Their Cars for the Design Competition

SPONSORSHIP

This year, PCED plans to bring over 250 high school students from all over New York City to visit our campus. Professionals from various Science, Technology, Engineering, and Math (STEM) fields will be giving valuable workshops for the high school students.

Representatives from engineering companies, professionals from development programs, high school and college level students, graduates, professors, and people from all types of backgrounds will actively network and explore STEM fields through their participation.

As a corporate sponsor, you will have the opportunity to reach out to such a great amount of students interested in engineering. This way you will have access to a rich reservoir of talent found in the multicultural community of New York High Schools. You will be able to promote and profile your company/organization at this prestigious event. Furthermore, you will help shape the future employees, managers, leaders, CEO's and visionary thinkers. Also, it is a great opportunity to network with the attendants that have once even volunteered or helped plan this event and are now part of our professional chapter as well as strong leaders in companies that have sponsored in the past. We can gladly provide you with access to a database of our members' resumes for available opportunities with the company/organization.



Figure 9. PCED Volunteer with Sponsor Essentia Donation

As a possible PCED sponsor, you can give an in-kind donation, provide promotional materials or choose to sponsor a specific component of our event. This includes T-shirts, Event bags, Team Project, Team Project prizes, Breakfast, and Lunch. If you choose to sponsor a specific component, kindly specify which you would like to sponsor. Again, thank you for your interest in our event.

Note: If you are interested in having any promotional materials be included in our registration bags, which will be distributed to all of attendees, please let us know.

Registration Package, Continental Breakfast, and Lunch

Cost:

- Continental Breakfast (\$625)
- Conference Bags (\$325)
- Conference Program (\$325)
- Lunch (\$950)

T-Shirts

Help fund club designed t-shirts for program participants with your company logo on the back. Also, help us fund programs, pamphlets, and other media.

Cost: T-shirts \$3500*

*For 600 people

| | |
|----------------------------------|---|
| Platinum Sponsorship \$3000 + | <ul style="list-style-type: none"> ▪ Full Page Ad in Event Brochure ▪ Large Logo on Event Shirt ▪ Receive one of the following events in your name: Event registration, Engineering Panel ▪ Official Sponsor of the event t-shirt |
| Gold Sponsorship \$1500 + | <ul style="list-style-type: none"> ▪ Full page ad in event brochure ▪ Large logo on event shirt ▪ Receive one of the following events in your name: Lunch, Team Project |
| Silver Sponsorship \$500 + | <ul style="list-style-type: none"> ▪ Half a page in event brochure ▪ Medium logo on event shirt ▪ Become an official Sponsor of the Event Bags |
| Bronze Sponsorship \$200 + | <ul style="list-style-type: none"> ▪ Half a page in event brochure ▪ Small logo on event shirt |

PAST CORPORATE SPONSOR



PAST HIGH SCHOOL ATTENDEES

A. Phillip Randolph High School
Academy of Finance and Enterprise
Aviation High School
Bayside High School
Bedford Academy High School
Bronx Aerospace Academy
Bronx Engineering and Technology
Academy
Bronx High School of Science
Bronx Center for Science and
Mathematics

Bushwick Leaders High School of
Academic Excellence
Career Technical Education
Franklin K. Lane High School
George Washington High School
Harry S. Truman High School
IN-Tech Academy HS 368
Luperon Preparatory High School
Manhattan Bridges High School
Manhattan Center for Science and Math
High School

Martin Luther King High School
Millennium Art Academy
Newton High School
Samuel Gompers High School
Theodore Roosevelt High School

Urban Assembly (UASDC)
William E. Grady HS
Williamsburg HS for Architecture and
Design

WE THANK YOU FOR YOUR SUPPORT!

PCED SPONSORSHIP – CORPORATE REGISTRATION FORM

Full Name: _____
Last First M.I.

Company/Organization: _____

Title: _____

Address: _____

City State Zip Code

Phone Number: _____ Fax Number: _____

E-mail Address: _____

Are you interested in furnishing us with your company promotional items?

YES NO

(See sponsorship sheet breakdown on the previous page).

Amount of Sponsorship: _____

In-Kind Special Sponsorship Pledge: _____

Total Amount Sending: _____

I am enclosing a check for the amount mentioned above payable to LAESA-SHPE. I understand that the payment and form must be returned promptly, for your company to be included in all PCED printed material.

Authorized Signature: _____

Title: _____ Date: _____

Please e-mail to LAESA.PCED@gmail.com or Mail Completed Form to:

LAESA-SHPE
Grove School of Engineering
The City College of New York
140th Convent Avenue, ST 142
New York, NY 10031