IEEE Pre-University Volunteer STEM Portal User Guide

Table of Contents

Welcome to the IEEE Pre-University Volunteer STEM Portal User Guide

The User Guide contains all essential information needed to make full use of the Volunteer STEM Portal. Learn how to use the various Volunteer STEM Portal features such as: Search for a Program, Find an Event, Share your Program, and Provide your Results. In addition, the user guide explains the vision, mission and theory of action behind the Volunteer STEM Portal.

Portal Overview: Mission & Vision

The Pre-University Volunteer STEM Portal is a centralized resource for IEEE operating units (i.e., student branches, chapters, sections, technical societies, etc.) and IEEE volunteers where you will have access to a searchable library of STEM programs and activities along with "how-to" resources in order to facilitate the execution of these pre-university STEM programs.

The STEM portal leverages the reach of IEEE's global communities and volunteers in order to engage as many students as possible with hundreds, if not thousands, of pre-university STEM activities every year across the globe.

| Mission	Vision
Providing opportunities and resources for volunteer generated STEM activities to impact as many students as possible	Youth will see themselves as someone who can improve the world through engineering.

Portal Benefits

- **Volunteer Opportunities:** Find STEM volunteer opportunities in your local section/region; Develop local STEM education communities
- **Access to Resources:** Find resources from other IEEE volunteers and partners to start or improve local STEM programs
- **Recognition:** Gain recognition for outstanding STEM programs that your Section has developed
- **Greater Impact:** Consolidates volunteer STEM efforts into one place for greater access, visibility and impact measurement

STEM Outreach Theory of Action & Core Design Principle

Theory of Action

The theory of action shows what STEM outreach opportunities we should provide, the knowledge, skills and attitudes we want the students to learn, all leading to having students seeing themselves as someone who can improve the world through engineering. The ultimate goal of IEEE pre-university is to have more and diverse engineering professionals in the world and that everybody understands and values engineering.
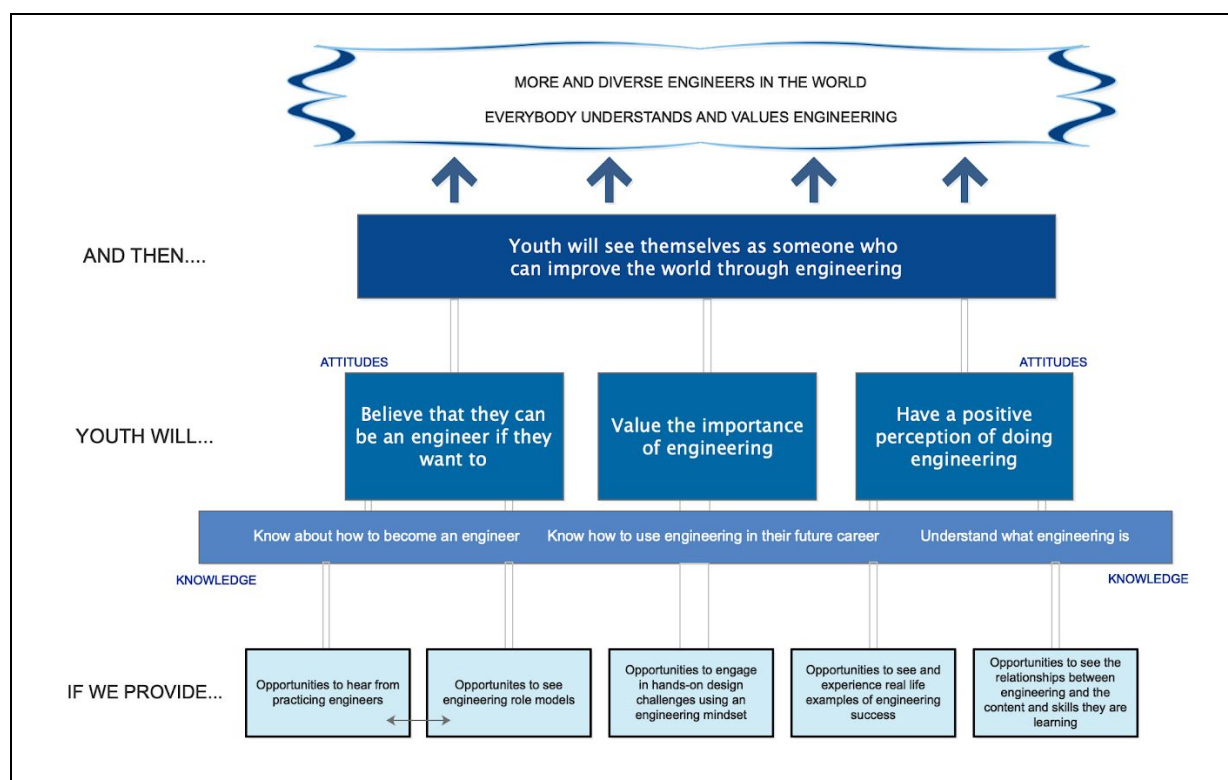
Core Design Principles

IEEE pre-university STEM programs aspire to:

- Demonstrate how engineering can make a difference;
- Target populations underrepresented in STEM;
- Have high quality design and content

An [Evaluation Tool](#) based on what is known about high quality pre-university engineering programs is being used to evaluate programs with the goal of continuous program improvement.

Working with Children Guidelines

IEEE staff and volunteers who participate in activities or programs designed for children (ages 18 and under) must register their program and complete online training.

- **How to register your program?**
  The primary program contact must register the activity or program by completing the Registration Form.

    - The activity must be registered 60 days prior to the start date of the program.
    - The registration form is reviewed by the IEEE Office of Risk and Insurance Management Services (ORIMS).
    - Registered activities will receive instructions for completing the required online training and background screening procedures, if applicable.

- **How to complete the online training?**
  You must register your activity to get an online training link.

  All IEEE staff and volunteers who interact with children, are required to complete the online training. The online training is delivered by IEEE's partner, Praesidium. The training must be completed every three years while an individual continues to work with children. The online training includes a review and acknowledgement of the IEEE Guidelines for Working With Children (PDF, 683 KB)

Frequently Asked Questions: IEEE Activities with Children FAQs (PDF, 472 KB)

How to Use the STEM Portal

To fully engage with the STEM Portal the following tasks are encouraged:

- Review the program categories and conduct a Search for Programs
- Decide on a program most suitable for your unit/community
- Review the program description and implementation guide
- Check out the available materials on the Resource Page
- Develop your program (volunteers, timeline, budget, logistics, etc.). Consider the IEEE pre-university STEM program Evaluation Tool as you develop your program.
- Review the IEEE Guidelines and Procedures for Working with Children and register your program
- Post your event to vTools Events
- Implement the program
- Conduct a participant survey. Consider the IEEE pre-university youth outcome questions.
- Provide your Results on the portal

- [Share your Program](#) on the portal
- Join the new Collabratec [IEEE Pre-University STEM Community](#) and the [TryEngineering Facebook Group](#) and share your story or learn best practices from other volunteers.
- Sign up for the [TryEngineering Newsletter](#) to stay connected

Search for a program

There are multiple places to find the "Search for a Program" button.
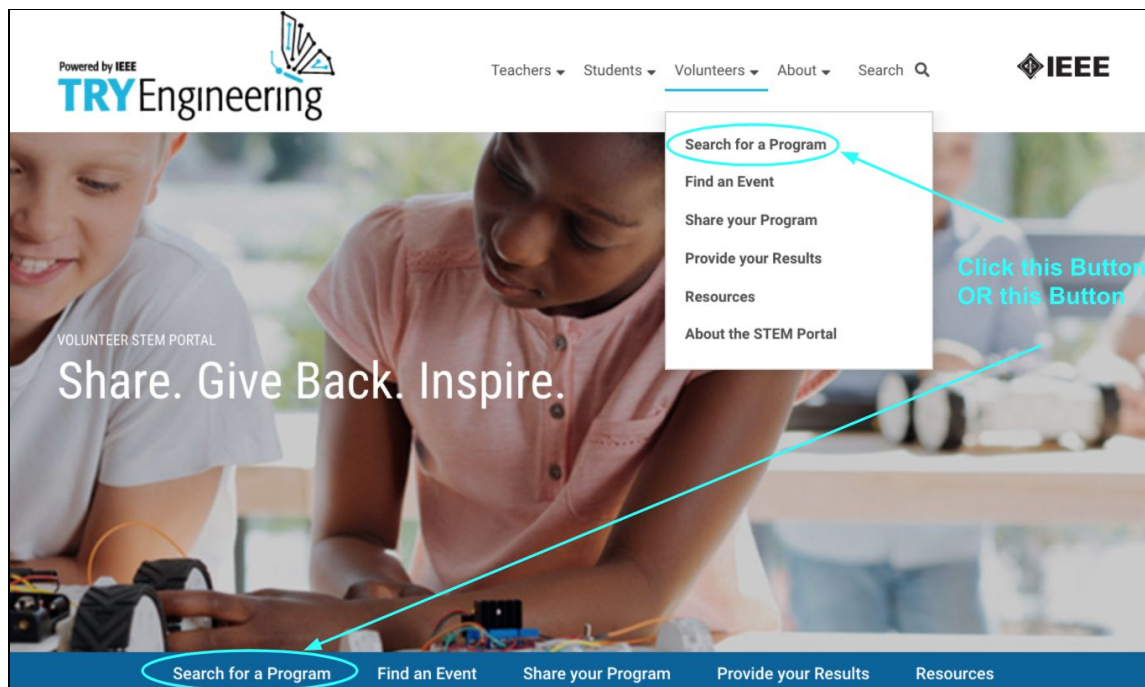
(1) Main menu drop down click "Search for a Program"
(2) Blue Ribbon Click "Search for a Program"
(3) Portal main page scroll down to "STEM Outreach Programs" and see the search options to the right in the thick grey bar.

How to conduct a program search

(1) Search by Location:

- All Regions
- R1-Northeastern USA
- R2-Eastern USA
- R3-Southeastern USA
- R4-Central USA
- R5-Southwestern USA
- R6-Western USA
- R7-Canada
- R8-Europe, Middle East, Africa
- R9-Latin America
- R10-Asia and Pacific

(2) Search by Category (program type):

- Camp
- Competition/STEM Fairs
- Girls In STEM
- Mentoring
- Student Workshop
- Teacher Workshop
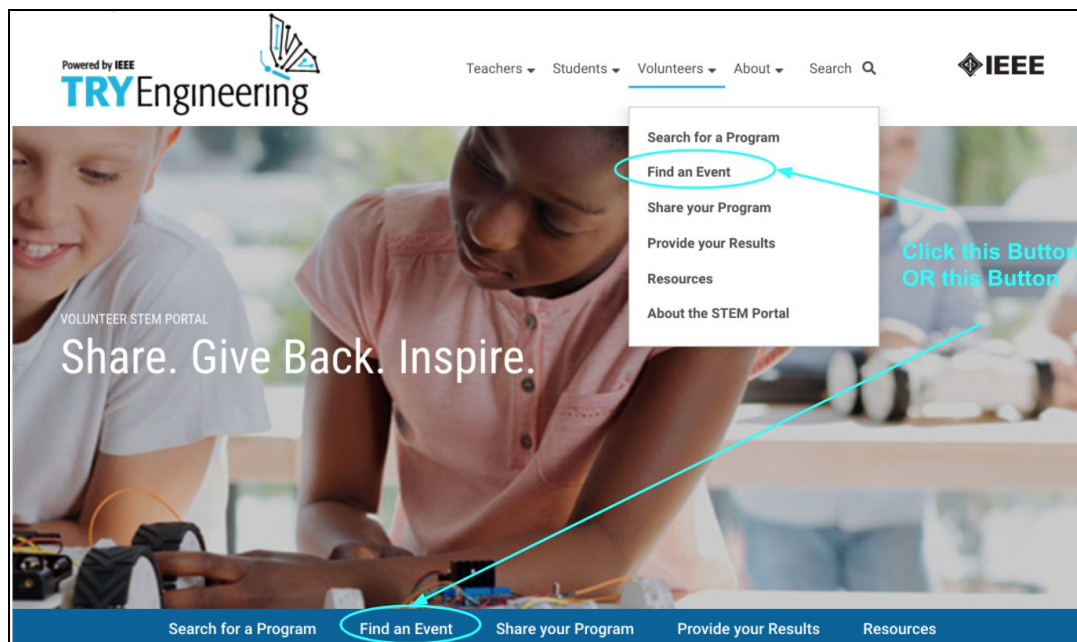- Industry/Company Tour
- Career Day
- Parent Program

(3) Key Word Search:

Type in a word you want to search on in the white box under "Search by Keyword" and click the blue "Search" box to complete the search.
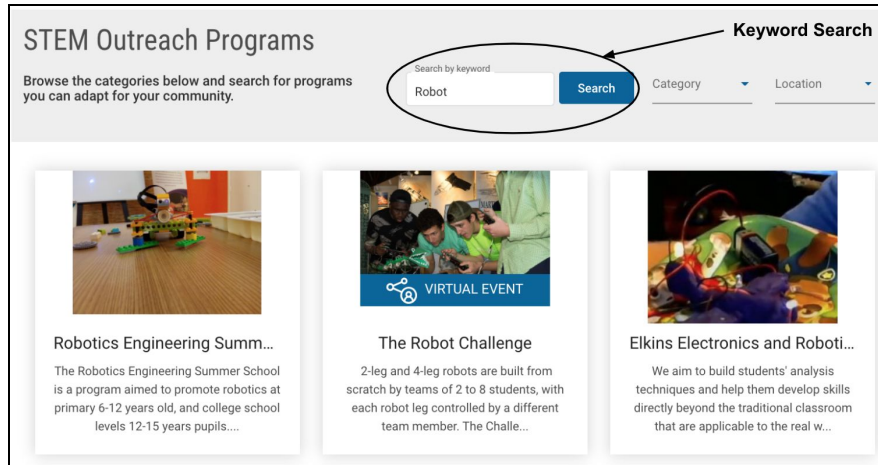
Find an Event

Click the "Find an Event" button in the Volunteer drop down menu or in the blue ribbon navigation.

Explore the upcoming STEM Events Feed. These events were posted in IEEE vTools by volunteers who run the event.

Each event has a pin on the world map and each pin can be clicked on for more information, including the event title and description.

Share your Program Process & Rubric

We encourage volunteers to contribute to IEEE's global impact on pre-university STEM students everywhere by sharing your programs with others. Click on the "Share your Program" button in the Volunteer drop down menu or in the blue ribbon navigation.
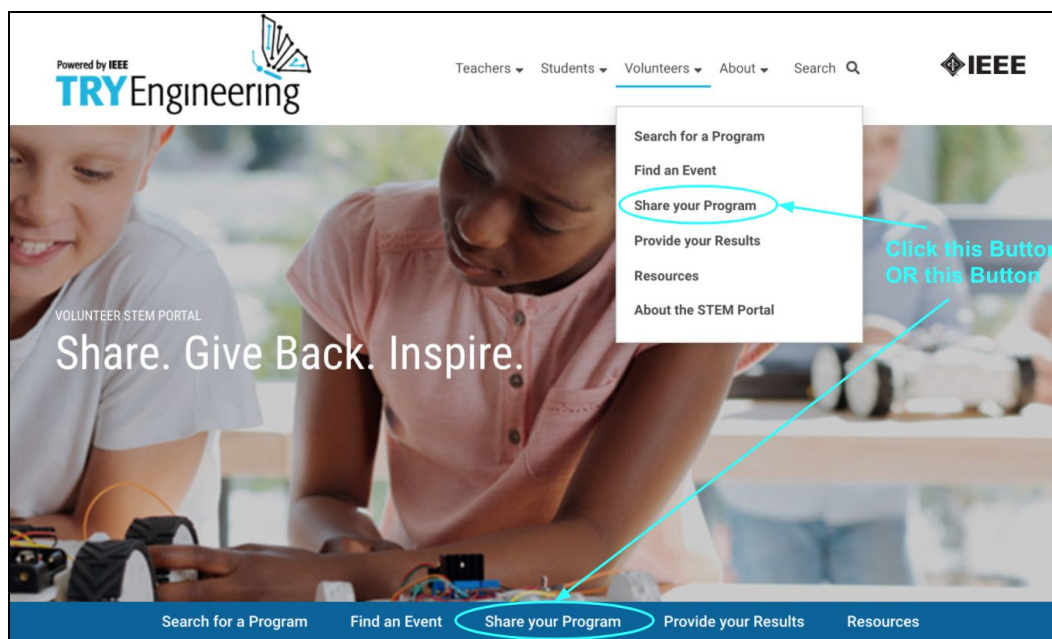
Follow the below steps to share your program:

STEP 1: Prepare to Share your Program

- It will take approximately 30 minutes to complete the program submission form.
- See how your program will look on the site by viewing this sample program.
- Gather all the needed information about your program including volunteer requirements, venue, materials and marketing information; number of participants and any photos or videos.

STEP 2: How to Share your Program?

- Click the "Submit Now" button.
- Once you submit you will get a confirmation email that it was received.

STEP 3: What happens after you Share your Program?

- **Program Review.** The Pre-University Education Coordinating Committee (PECC) will review your program within 15 business days. The Evaluation Tool is based on what is known about high quality pre-university engineering programs.

- **Implementation Guide.** You will get an email that your program has been reviewed. It will be part of the library of programs. Then to finalize the process, you will need to complete the implementation guide. This gives other volunteers more details about your program and how they might be able to implement it in their community. You will get a link to the form to fill out. This will take approximately 30+ minutes to complete.
- **Program is Posted to the Volunteer STEM Portal.** Once your implementation guide is submitted you will receive a final email (within 10 business days) that your program has been posted to the portal.
- **Let Everyone Know your Program is on the Portal.** In that same email you will also get a Volunteer STEM Portal logo (with embed code) that you can add to any events (connected to your program) that you post to vTools. Your event will get the Volunteer STEM Portal logo designation, letting others who view the event on vTools and in our portal event feed that your program is on the Pre-University Volunteer STEM portal.

Provide your Results

Volunteers collectively report on the results of their STEM activities occurring in their local communities. The program results number will be added and shared in the portal results dashboard.

Here is a sample report. It will take approximately 15 minutes to complete the form. Click on the "Provide your Results" button in the Volunteer drop down menu or in the blue ribbon navigation.
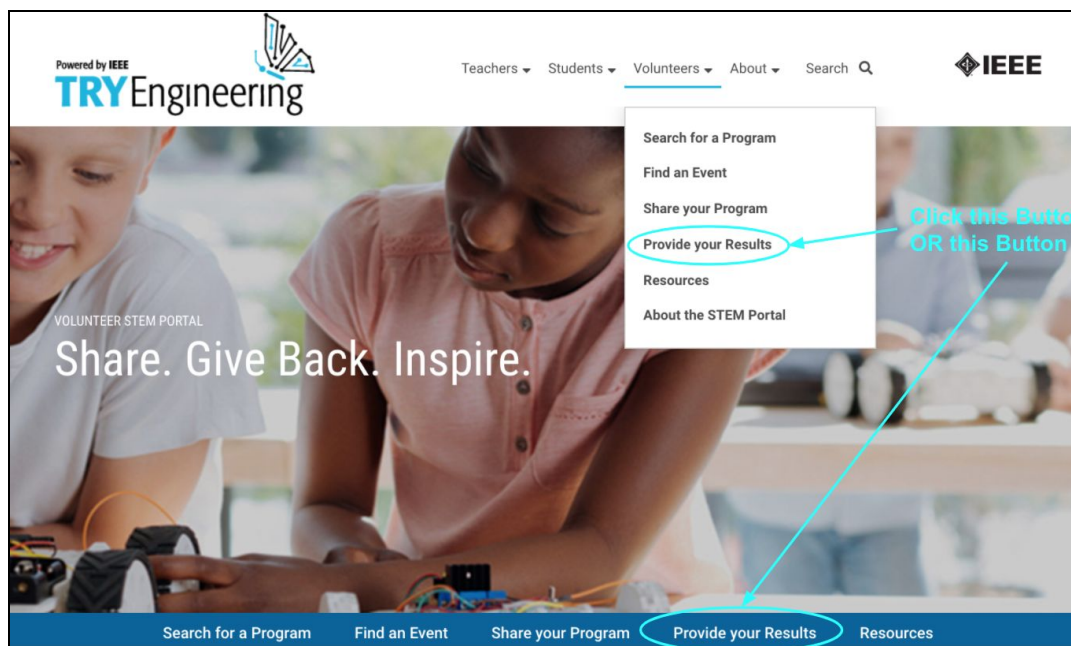
Once on the "Report you Results" page, there are two options to share results. You can either share using vTools or using a report form.

Reporting with vTools

Click the "Share Now on vTools" button.
This will take you to [vTools Events](#)

- If you are familiar with vTools you may notice the vTools event reporting form has more questions than it did prior. That is so we can report on our collective impact.
- If you are new to vTools you will need to create your event in Vtools before sharing your impact data. Here is a tutorial to learn more about [vTools Events](#). Either way, you can select the button below to log into vTools.

Alternative Reporting Options

If you do not use vTools, please provide your results by clicking the "Share Now" button.

Resources
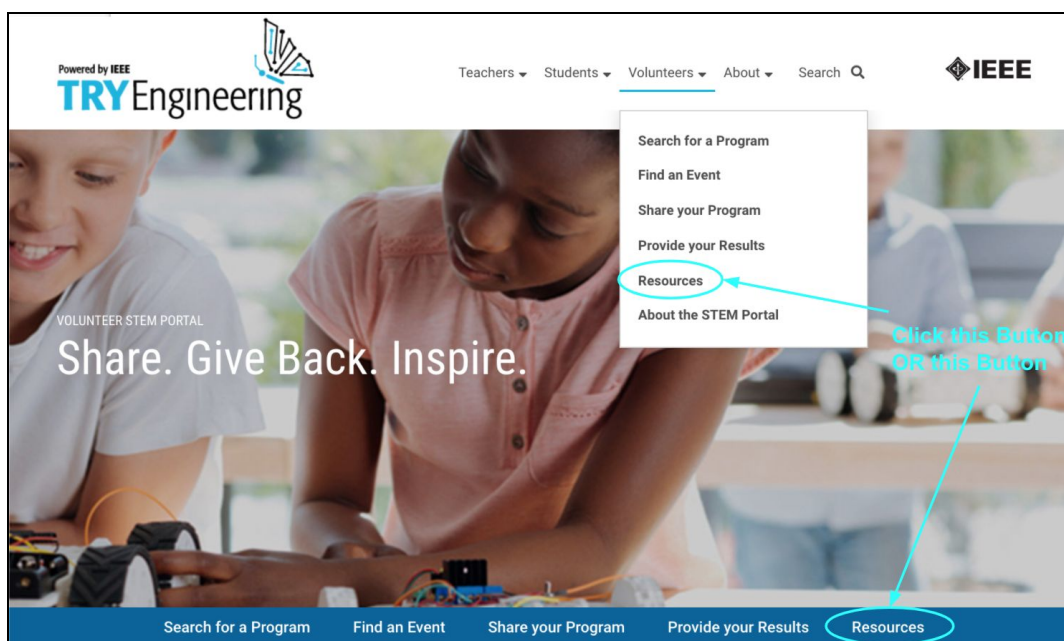
Explore all of the resource categories to help you create engaging and effective STEM learning experiences:

- [Why STEM Outreach?](#)
- [Diversity in STEM](#)
- [STEM Outreach Fundraising](#)
- [STEM Outreach Methods & Strategies](#)
- [STEM Lessons & Activities](#)
- [STEM for Good](#)
- [Volunteer STEM User Guide](#)
- [STEM Tech Tools](#)
- [STEM Education Research](#)
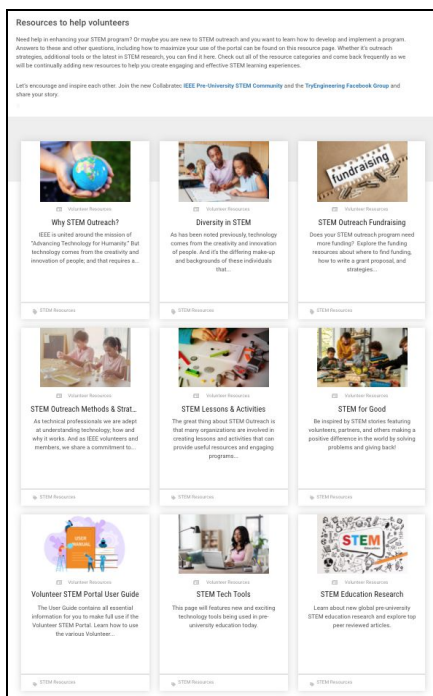
Join the IEEE Pre-University STEM Community

- Join the new Collabratec [IEEE Pre-University STEM Community](#) and the [TryEngineering Facebook Group](#) and share your story, learn best practices, and/or engage in discussions on STEM Outreach topics.
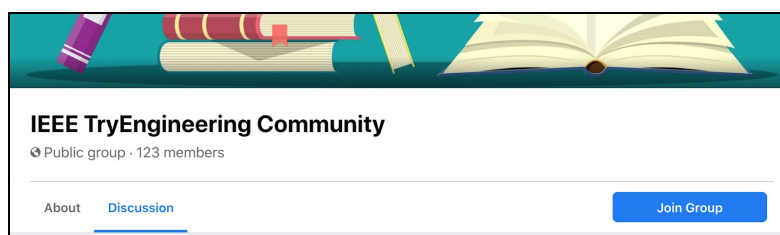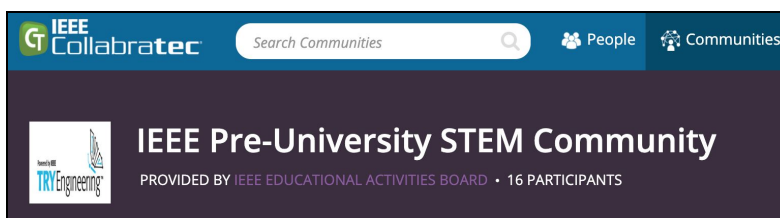
- Sign up for the TryEngineering Newsletter to stay connected by clicking the "Subscribe" button on the far right side of the page or visiting this direct link. This is a weekly newsletter that features STEM outreach resources, success stories, programs, and volunteers.

Appendix

[TryEngineering Volunteer STEM Portal - Call to Action](#)