

IEEE

IEEE is the world's largest technical professional organization dedicated to "advancing technology for the benefit of humanity," with over 400,000 members in 160 countries. Founding members include Alexander Graham Bell, Thomas Edison, and Nicolai Tesla. Formerly known as the Institute of Electrical and Electronics Engineers, we are a professional society for anyone working with technology... so, practically anyone. (Perhaps that's why this list of opportunities is so long!)

<u>IEEE Vision, Innovation, and Challenges Summit and Honors Ceremony</u> – May 11-13, 2021

FREE to all in 2021 (please share with your teachers!)

Also known as the "Oscars of Engineering," the VICS conference offers front-row seats to world-sharing their insights on education, healthcare, diversity and inclusion, and cybersecurity, to nar Honors Ceremony recognizes some of the world's greatest technologists, engineers, and leaders that have changed our landscape for the better—the 2021 IEEE Medal and Recognition recipients!

IEEE Student Branches

No matter what school you attend, or the degree you pursue, look for an IEEE Student Branch to develop professional skills -- and a valuable community of lifelong friends. Here's a few to check out!

MIT/ACM ~ UCLA ~ UCSD ~ Berkeley ~ Texas A&M ~ Georgia Tech ~ Yale ~ Purdue ~ University of Florida

IEEE TryEngineering Summer Institute Summer 2021

The IEEE STEM summer course allows you to meet working engineers and experience VIP tours of engineering companies and centers. The hands-on skills learned and projects tackled explore how engineers from a variety of backgrounds can solve real-world problems. Scholarships available.

TryEngineering.org

What engineers *really* do (and need to know) is remarkable in its breadth. The IEEE TryEngineering platform introduces you to the people, problems, and practices that make the world of engineering so exciting in its diversity and impact.

IEEE Xplore training and tools

Technical literature isn't just for researchers. IEEE *Xplore*, our database of over 5 million full-text articles, is the backbone of collaboration, competitive intelligence, and innovation. Learning to navigate the information tools many engineers consider essential to success can only help you — in classes and your career. IEEE *Xplore* isn't available to high schools, but almost every top engineering school in the world has access, to help faculty and students drive innovation in classes and the lab.

IEEE Technical Societies

Few students understand how IEEE is organized technically and geographically. The 39 Societies of the IEEE form a matchless portal into the deepest levels of a technical discipline and a pipeline to leaders in a field. Most Societies include student outreach programs, awards, incentives, etc. and the cost to add a Society membership is nominal. Don't overlook the IEEE Technology and Engineering Management Society. If nothing else, check out the Transformational Leadership and Innovation from Engaging Dialogues with Stephen Ibaraki.

IEEE Technical Councils

IEEE Technical Councils are groups of Societies working together in broad areas of technology. Membership in any of the seven Councils is FREE.

IEEE Geographic Communities (Sections under "Local Communities")

IEEE local geographic organizational units (regions, sections, chapters, student branches, and affinity groups) provide opportunities for members to attend technical presentations, create strong professional connections, and participate in leadership roles that can impact IEEE members' jobs and careers.

IEEE App

IEEE at your fingertips – news, members, meetups, technical insights, and trends.

IEEE TechEthics

IEEE TechEthics program's objectives include educating engineers and other key stakeholders by developing, curating, and disseminating examples of ethics conversations through videos, articles, and other materials. In addition, IEEE TechEthics will collaborate with organizations to coordinate activities and see that all ethical viewpoints—including cultural, philosophical, and regional differences—are covered.

IEEE Conferences

IEEE *typically* sponsors more than 1,900 annual conferences and events worldwide, curating cutting-edge content for all of the technical fields of interest within IEEE. Convenes small groups to over 10,000 engineers and technologists. On the conference home page, scroll to the search bar mid-way on the page to explore what, when, where, and why these conferences take place virtually every day of the year.

IEEE New Technology Connections

I love this as an accessible "snapshot," especially for undergrads. "The IEEE Future Directions team has identified the technologies as primary focus areas and has established them as formal initiatives to engage IEEE and the general public. For each initiative, you will find a wealth of knowledge, resources, and opportunities to participate." Visit each featured portal for access to upcoming conferences, news articles, technical papers, related standards, professional organizations, and academic programs.

IEEE Spectrum

A "must read" for engineers and technologists at all stages of their careers. Special reports, blogs, multimedia... and award winning team of journalists tracks trends and tidbits in tech worldwide. If you don't have a magazine subscription, check out <u>IEEE Spectrum online</u>.

MIT Undergraduate Research Technology Conference October 8-10, 2021

Joint effort between the MIT Student Branch and the IEEE Boston Section. By students, for students, with potential to present a peer-reviewed paper, lightning talk or poster. Seniors who graduate in spring are still eligible to participate. Attendees can stay with MIT students to help keep costs low.

<u>IEEE Rising Stars</u> January (annual - right before the Consumer Electronics Show)

Rising Stars brings together technical professionals who are experts in emerging technologies, plus those who inspire attendees to succeed and lead in an ever-changing job environment.

IEEE Women in Engineering (WiE)

IEEE WiE is free to student members, male and female, and one of the largest international professional organizations "dedicated to promoting women engineers and scientists and inspiring girls around the world to follow their academic interests to a career in engineering."

IEEE Women in Engineering International Leadership Conference (April 27-30, 2021)

For students and professionals, all genders. Lots of industry recruiting in between the talks. If you have students with leadership potential or who need to be inspired, support attendance. Some IEEE Sections support attendance for Student Branch leaders.

<u>IEEE-USA Webinars</u>: Accessible to the public, designed to help engineers find their next job, build a career, negotiate a better salary, understand ethical considerations in the workplace, public policy, etc. Watch: <u>IEEE-USA</u> is <u>My Competitive Edge</u> (applies to the Institute as well).

IEEE-USA Government Fellowships

"Each year, IEEE-USA sponsors three or four government fellowships for qualified U.S. IEEE members. The Fellows — chosen by the IEEE-USA Government Fellows Committee and confirmed by <u>our Board</u> — spend a year living and working in Washington as advisers to the U.S. Congress and to the U.S. Department of State or U.S. Agency for International Development."

IEEE-USA Job Site

Search for an internship, full-time employment, career advice, and more! US-centric, but does include international opportunities.

IEEE Standards University

There is a wealth of information on the Standards University site, much of it free, to help build standards education into the curriculum. There are even <u>grants</u> available to students (with honoraria to faculty) if standards are incorporated into capstone design or graduate projects. Encourage students to sign up for the free E-Magazine. Note: you can *participate* in standards development for free; however, to *ballot*, there is a membership fee.

IEEE Power and Energy Society (PES) Scholarships

Deadline: June 30 – as many as 200 of these given out! "For qualifying students, the program not only provides scholarships, but also offers many opportunities to gain experience and build knowledge in power and energy engineering careers, including mentoring opportunities and special recognition as a PES Scholar. Scholarship amounts are US\$2,000 the first year, US\$2,000 the second year and US\$3,000 the third year (as long as you continue to qualify)."

IEEE Computer Society Richard Merwin Scholarship

April 30 deadline: "IEEE Computer Society offers \$40,000 in student scholarships from \$1,000 and up to recognize and reward active student volunteer leaders in student branches or chapters who show promise in their academic and professional efforts."

IEEE Humanitarian Activities - "Doing Good Brings Great Returns"

Through IEEE's diverse humanitarian/philanthropic programs, there are many opportunities to make a contribution to improving the human condition worldwide. You can become involved at any stage of IEEE engagement; together, the strength and reach of the IEEE network can be leveraged to make a difference worldwide.

IEEE Eta Kappa Nu (HKN)

The honor society of IEEE, "dedicated to encouraging and recognizing individual excellence in education and meritorious work, in professional practice, and in any of the areas within the IEEE-designated fields of interest."