

EXPLORE

# Electrical Engineering



**PennState**  
College of Engineering

The electrical engineering program at Penn State consistently ranks as a top program in the United States as reported by U.S. News & World Report.

Our curriculum provides broad-based knowledge in electrical circuits, digital systems, electronic devices, electromagnetics, signal processing, communications, and control, as well as expertise in one or more areas of specialization.

Additional problem-solving skills and practical experiences are developed through design projects and laboratory assignments, which also provide team-building and technical communications skills.

We have a number of professional societies that allow students to explore electrical engineering outside the classroom.

Students have access to speakers, career fairs, conferences, competitions, tours, professional contacts, leadership opportunities, and social events.



Our alumni remain actively involved, particularly in our mentoring program. Our undergraduates are paired with electrical engineering alumni working in industry. Our mentors facilitate professional development by providing students with guidance, counsel, and networking opportunities.

For more information about the School of Electrical Engineering and Computer Science at Penn State, visit [eecs.psu.edu](http://eecs.psu.edu).



## Math, Physics, and Computer Programming

Students who enjoy these will do well in electrical engineering. Our areas of specialization build on these skills.

## Engineering Co-Op and Internship Program

Integrate classroom learning with real-world experience.



## Study Abroad Programs

Gain a worldwide perspective as you develop foreign language skills, cultural understanding, and professional experience.

## Graduate Program

Broaden educational credentials and improve your marketability in the global workplace.

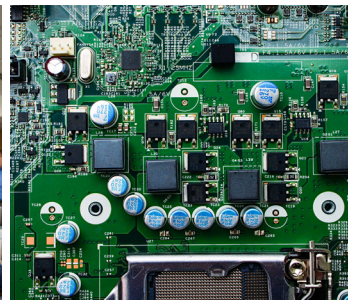
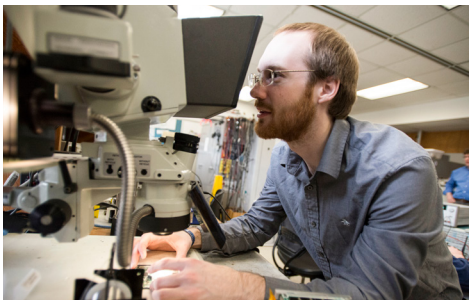
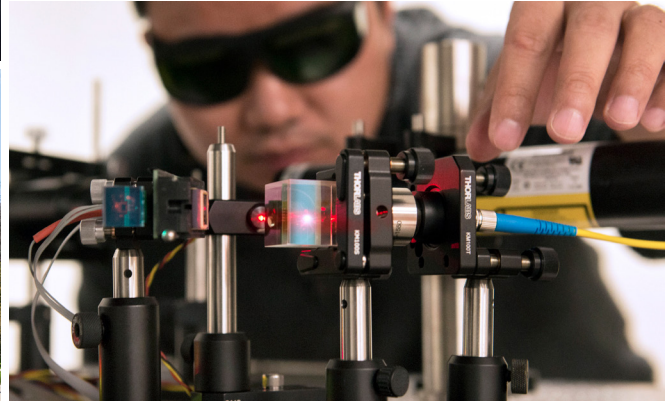
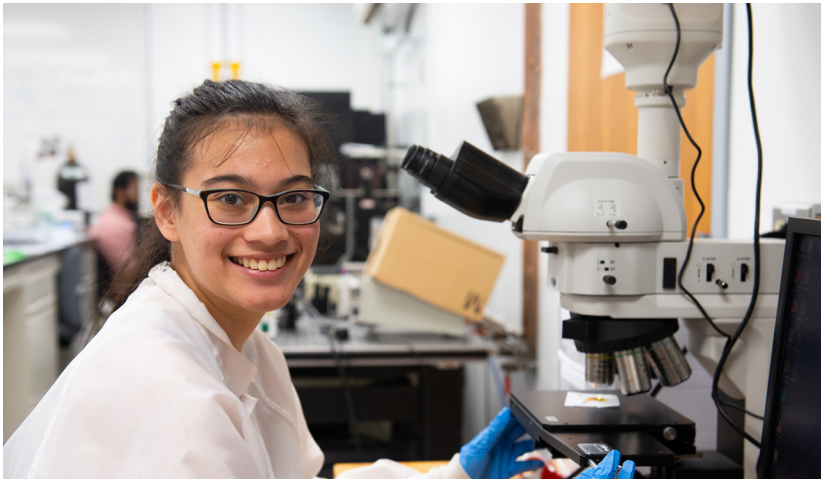


## Engineering Ambassadors

Build leadership skills and gain communication experience through the outreach program that seeks to motivate the next generation of engineers.

EE

Hear from students and alumni by watching the Exposure to Major video series: [bit.ly/PennStateEngineering](http://bit.ly/PennStateEngineering)



# What is an electrical engineer?

Electrical engineers (EEs) study and apply physics and mathematics to design electrical and electronic systems and their components for a wide range of applications such as mobile phones; wireless communications; consumer electronics; control systems; computers; computer networks; power generation; machine learning; robotics; nanoelectronics; nanophotonics; bioelectronics; autonomous transportation; wearable electronics; and metamaterials.

**Examples of career opportunities:** Systems and circuit design for consumer electronics; sensors; control systems; power and energy systems; communications, signal processing software and hardware development for audio and video applications; software design and algorithm development for artificial intelligence; cyber security; computer vision; medical imaging; big data analytics

[eecs.psu.edu](http://eecs.psu.edu)

This publication is available in alternative media on request. Penn State is an equal opportunity employer and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status. ©2025 The Pennsylvania State University. All Rights Reserved. UBR ENG 25-200



**Erica Venkatesulu**  
Schreyer Honors College

*"I love electrical engineering because it is such a broad field. I have met EEs using radio waves to study glaciers, designing power supplies for sounding rockets, and helping biomedical researchers develop wireless imaging devices, and those were all undergrads!"*