ELECTRICAL AND COMPUTER ENGINEERING

Consistently ranked among the best in the nation, The Ohio State University’s Department of Electrical and Computer Engineering (ECE) enjoys an excellent academic reputation, not only among peer programs, but from industry and government as well. The department provides superior training for students and groundbreaking research at the frontier of high technology. ECE faculty, researchers and students engineer solutions to problems in diverse fields, from biotechnology to nanotechnology and beyond. Electrical engineers find innovative ways to use electricity, electric materials, as well as electrical and magnetic phenomena, to empower society. Computer engineers design systems, both hardware and software, to create new technology and meet societal needs.

RANKINGS

Ohio State has the top-ranked ECE department among Ohio universities, according to U.S. News and World Report. In the 2021 issue, Ohio State’s electrical engineering program ranked 22nd out of 185 programs nationally. Our electrical engineering program is ranked 1st in Ohio and 8th nationally for veteran friendliness by College Factual.

ACADEMICS

• BS in Electrical and Computer Engineering
• MS in Electrical and Computer Engineering
• PhD in Electrical and Computer Engineering

Ohio State’s electrical engineering program and computer engineering program are both accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Autumn 2019 Enrollment
Undergraduate students ........................................ 759
Master’s students .................................................. 197
Doctorate students ................................................. 237
TOTAL ..................................................................... 1,193

Degrees Conferred 2018-2019
Bachelor’s ............................................................... 274
Master’s ................................................................. 116
Doctorate ............................................................... 45

RESEARCH

The department’s faculty and researchers are active in the areas of analog and RF electronic circuits, communication/signal processing, computer and digital systems, computer vision/image processing, control systems, electromagnetics, remote sensing, microwaves, optics and photonics, nanotechnology/electronic materials, robotics/intelligent transportation, networking and sustainable energy, and power systems.

In fiscal year 2019, this research was supported by $19.8 million in externally sponsored funding.

Along with other state-of-the-art facilities on campus, ECE’s 30 research centers and laboratories provide a world-class environment for learning and discovery.

Top U.S. Centers and Labs Include:
• Center for High Performance Power Electronics
• Circuits Laboratory for Advanced Sensors and Systems
• Computational Biology and Cognitive Science Laboratory
• Crash Imminent Safety University Transportation Center
• ElectroScience Laboratory, a major U.S. electromagnetics research facility
• High Voltage and Power Electronics Laboratory
• Information Processing Systems Laboratory
• Solid State Electronics and Photonics Laboratory
FACULTY
• 58 tenure-track faculty, 7 research-track faculty and 5 clinical faculty
• 2 National Academy of Engineering members, 25 IEEE Fellows

ALUMNI
Known, living ECE alumni worldwide...............12,136
Ohio State ECE graduates are recruited by major companies, including IBM, Texas Instruments, Microsoft, AT&T, Intel, HP, Ford and GM. Many of our PhD graduates hold faculty positions at other universities in the United States and overseas.

DIVERSITY
• ECE graduate students represent different countries from all around the world.
• The department boasts the highest percentage of female electrical and computer engineering faculty in the country.
• 18% of ECE graduate students and 13% of undergraduate students were female in 2019.
• The number of underrepresented minorities (African American, Hispanic and Native American) in ECE’s student body included 8.2% undergraduates and 5.5% graduate students in 2019.

HISTORY
1884: First electrical engineering class taught at Ohio State
1888: Electrical engineering program launched
1891: First undergraduate degrees awarded
1900: Master’s degree program authorized
1928: First doctorate degree awarded

STUDY ABROAD
In addition to the hundreds of university study abroad programs available, the ECE department offers two unique exchange programs to better prepare engineers for the global economy. Students can study and conduct research at the School of Electronic, Information and Electrical Engineering at Shanghai Jiao Tong University or at the University of Electronic Science and Technology of China.

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