Electrical Engineering

You’ve got the power.

Given the vast number of things in our world that are powered, connected, and smart, electrical engineers have nearly endless potential. Electrical engineers use their command of physics and mathematics to design electronics and electrical devices at all scales: tiny microelectronics that cannot be seen without a microscope, massive generation plants that deliver electricity throughout the world, data processing algorithms that run on wearable devices, and global air and ground communication networks, among many others.

With an electrical engineering degree, you might:

- Develop and improve wireless networks that support global communications
- Invent new touch-sensitive coatings that make display screens even stronger
- Design navigation systems that guide autonomous cars, trucks, and ships

“UIC’s Society of Asian Scientists and Engineers helped me to meet other students in the field and led me to my first job.”

Zachary Hellriegel,
Electrical Engineering ’19
Systems Integration/Test Engineer, Lockheed Martin

Creativity in action

For our annual senior design showcase, the UIC Engineering Expo, electrical engineering students have created:

- A sensor system that protects bicyclists by flagging dangers approaching from behind
- A robotic purifier that moves through a building to clean the air
- A product that identifies counterfeit microchips that could cause hardware failures
- A Python-driven system that finds open parking spaces and notifies drivers

Visit our Internships and Jobs and Student Profiles pages at ece.uic.edu to learn more about current students and alumni.
Computer Engineering

How much do you trust your hardware device?

At UIC, Xiaolin Xu teaches an entire course on hardware security and trust, including how to design electronics against invasive attacks, how to detect counterfeit electronics, how to monitor for hardware piracy, and other subjects that are crucial for engineers and for all tech companies, from startups to massive corporations.

The best part? Xu’s door is open to undergraduates who are interested in talking about—or even doing some research in—this area.

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Every year, computing systems become faster, smaller, and more capable.

Behind all that innovation are computer engineers. As a computer engineering major, you will learn about the design and development of computer systems and see how hardware interacts with software. You will understand how computers work and know their full potential.

With a computer engineering degree, you might:

- Create the next generation of supercomputers
- Introduce new computing systems into objects we use every day
- Devise ways to make smartphones even more powerful

“"The ECE department works for the students. Professors had the door open for us always.”

Rina Binxhliu,
Computer Engineering ’18
Systems Engineer, Dell

Creativity in action

For our annual senior design showcase, the UIC Engineering Expo, computer engineering students have created:

- A “smart name tag” tracking device for children and the elderly
- An Internet of Things lunch box that can be remotely temperature-controlled
- A semi-autonomous, ground-driven robot built to explore indoor environments
- A WiFi-free navigation system for large spaces, such as airports and shopping complexes

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