

# 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.



**“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

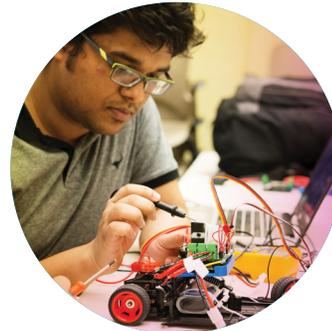
### Move over, Elon

For decades, college engineering students have raced combustion-engine cars in Society of Automotive Engineers events all over the country.

Now, these Formula-style competitions are going electric.

Founded by an electrical engineering major, UIC's Vehicle Electronics and Systems Engineering group, shown here on a group trip to CNH Industrial's R&D headquarters in Burr Ridge, is building an electric race car. Students have the opportunity to work on a wide range of vehicle components: researching them, modeling and drawing parts, and finally validating and manufacturing them. But the group members know that the true validation will come on the track.

Visit our [Internships and Jobs and Student Profiles](#) pages at [ece.uic.edu](#) to learn more about current students and alumni.



### 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

**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

