



M.S. AND PH.D. IN

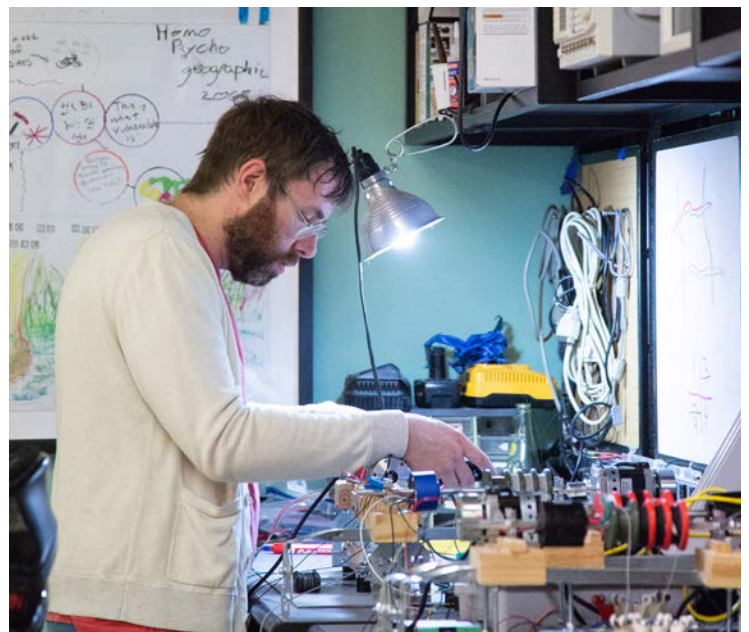
# ELECTRICAL ENGINEERING

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***PIONEERING THE TECHNOLOGY OF THE FUTURE***

## ELECTRICAL ENGINEERING AT THE UNIVERSITY OF HOUSTON

Electrical engineering is an exciting and continually developing field – it encompasses virtually anything you can think of that requires electrical power to operate. As an electrical engineering graduate student at UH, you will become experienced with electrical engineering design, systems operation, manufacturing and management. Students may specialize in one of four areas of strength, including: control and power systems, electromagnetics and microelectronics, electronics and computers, and signals and communications. Graduate students with an interest in power systems can pursue a specialized industrial power systems track within the program, offering specialized training on industrial power systems design, power systems analysis, regulations and standards, equipment and systems protection. The industrial power systems track was established at the request of industry and its curriculum was shaped with the guidance of leaders in the power systems industry to ensure students develop the knowledge and skills required for current workforce needs.



Cullen College of Engineering  
UNIVERSITY OF HOUSTON



## FACULTY EXPERTISE & RESEARCH ENTERPRISE

Our award-winning faculty are constantly performing cutting-edge research, and are always seeking hard-working graduate researchers to join them in their labs.

Available research areas in the Electrical and Computer Engineering Department include devices and materials, imaging and signal processing, data, computing and computer systems, photonics, plasmonics, electromagnetics and optoelectronics, sensors and bioengineering, and power and energy systems.

To view a full list of faculty by research area, please visit:

[www.ece.uh.edu/research/faculty-expertise](http://www.ece.uh.edu/research/faculty-expertise)

## PROGRAM BENEFITS

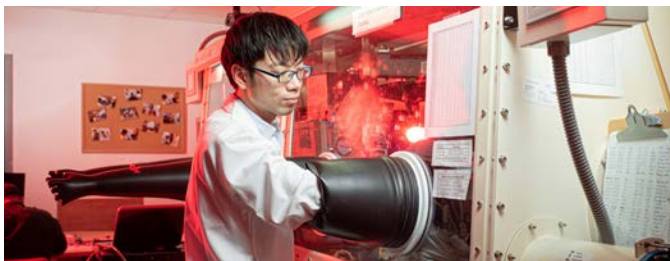
Electrical engineering graduate students at the University of Houston have the opportunity to work with and learn from faculty recognized as world leaders in their fields. These include Fellows of the IEEE and the National Academy of Inventors, multiple winners of the National Science Foundation (NSF) CAREER Awards and investigators in major research projects supported by NASA, the Defense Advanced Research Projects Agency, the National Institutes of Health, the Advanced Research Projects Agency - Energy and the NSF.

Graduate students can also take full advantage of the college's location in Houston. Many department researchers work closely with firms in the energy industry, allowing them to address the sector's most pressing needs. Faculty also have ongoing collaborations with physicians and researchers at Texas Medical Center institutions, enabling them to bring advances from the lab to the clinic as quickly as possible.

The job outlook for electrical engineers is excellent – especially in the city of Houston, the Energy Capital of the World. Alumni of the electrical engineering graduate program work locally and overseas for Halliburton, Schlumberger, Hewlett Packard, CenterPoint Energy, Burns & McDonnell, as well as other medical, telecommunications, construction and petrochemical companies.

## WHAT TYPES OF GRADUATE DEGREES DO YOU OFFER IN ELECTRICAL ENGINEERING?

The UH Cullen College of Engineering offers an M.S. degree (thesis and non-thesis) and a Ph.D. degree in electrical engineering, as well as a graduate-level certificate in “Power Systems and Smart Grid” or “Power Electronics and Renewable Energy Technologies.” Students have the option of taking some courses online.



## FACILITIES & LABORATORIES

Housed in Engineering Buildings 1 and 2, Electrical and Computer Engineering laboratories are a hive of activity and innovation, from building drones to exoskeletons to integrated circuits, imaging technologies, and computing devices and models. Some noteworthy labs include:

- Advanced Imaging and Sensing Lab
- Computational Medicine Lab (CML)
- Integrated Circuits and Microsystems Research Lab
- Laboratory for Noninvasive Brain-Machine Interface Systems
- Wireless Networking, Signal Processing and Security Lab

Learn more at: [www.ece.uh.edu/research/laboratories-facilities](http://www.ece.uh.edu/research/laboratories-facilities)

## CENTERS & CONSORTIA

Collaborations with industry are both internal to UH and Engineering and external research enterprises are a tenet of our Department. The faculty lead and participate in the following centers and consortia:

- IUCRC BRAIN Center
- Center for Electromagnetic Compatibility
- Center for Neuro-Engineering and Cognitive Science
- Center for Integrated Bio and Nano Systems
- Nanosystem Manufacturing Center
- The Center for Electromagnetic Compatibility Industry/University Cooperative Research Center
- The Center for Subsurface Modeling and Characterization Consortium (CSMC)
- Electric Power Analytics Consortium
- Power Electronics, Microgrids and Subsea Electrical Systems Center

## FOR MORE INFORMATION

For more information on eligibility and admissions requirements, please visit [www.ece.uh.edu/graduate/degree-programs](http://www.ece.uh.edu/graduate/degree-programs)