

A MESSAGE FROM OUR DEPARTMENT HEAD

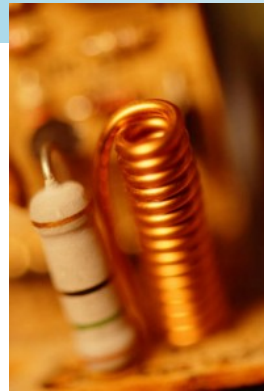
Thank you for your interest in Drexel University's Electrical and Computer Engineering (ECE) Department – one of the most active and original communities of scholars and researchers in these professional fields. Our Department serves as a major resource of high-quality experts in all areas of ECE, from control theorists who think of the next generation of intercontinental and even space travel, to clean energy researchers who develop new methods for harnessing wind and solar energy for wide scale use. Our faculty includes individuals who model large scale communication networks in order to contribute to the next incarnation of the Internet, as well as researchers who think about the next multimedia tools for entertainment, and analyze sensory reaction to music and video.



Moshe Kam,
ECE Department Head

Drexel ECE graduates can be found wherever high level research and development in technology is performed. We have graduates who work on special suits for pilots in high-acceleration aircraft, and graduates who work with physicians on image processing techniques that help diagnose disease earlier and with higher reliability. Drexel graduates designed, built and installed new digital controllers on US Navy ships, and were the driving force behind "green" power stations that supply energy with much reduced impact on the environment. Our people hold leadership positions in companies engaged in satellite design, rocketry, smart bridges and highways, high definition TV and, most recently, 4G – the latest generation of cellular telecommunication systems.

Feel free to visit us on line or in person, or write to us for more information. We have provided thousands with opportunities to study, experiment, test new ideas, make new inventions, and build new devices. If you wish to know more on the state of the art in technology or feel ready to join the adventure of creating the next generation of techniques and devices, the ECE Department at Drexel is probably the right place for you.



The ECE Department prepares men and women to become leaders working in a highly dynamic and global environment at the forefront of Engineering and pursues research to advance the state-of-the-art in Electrical and Computer Engineering and Education.



**DREXEL UNIVERSITY
DEPARTMENT OF ELECTRICAL
AND COMPUTER ENGINEERING**

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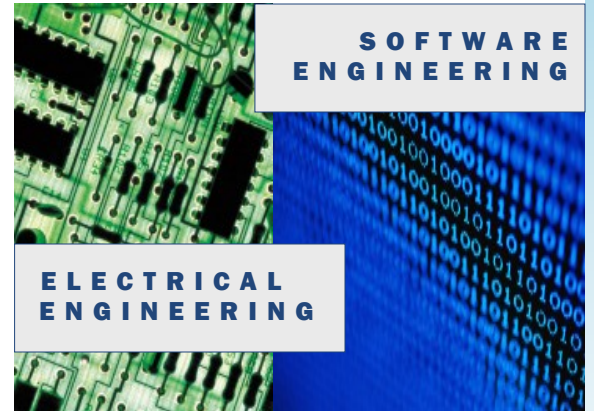
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**ELECTRICAL
AND COMPUTER
ENGINEERING**

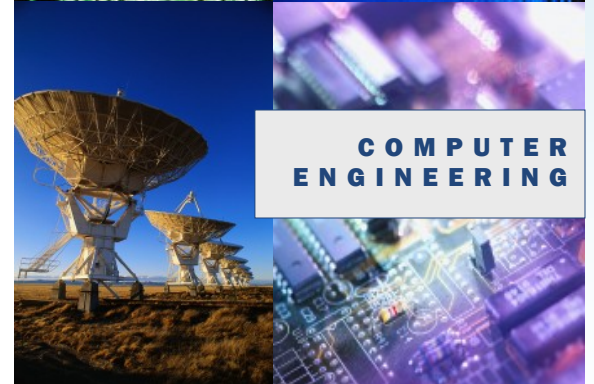
AT DREXEL UNIVERSITY

**SOFTWARE
ENGINEERING**



**ELECTRICAL
ENGINEERING**

**COMPUTER
ENGINEERING**



**TELECOMMUNICATIONS
ENGINEERING**

THE DREXEL ADVANTAGE



The Electrical and Computer Engineering (ECE) Department at Drexel University is one of the most dynamic and innovative communities of scholars and researchers in the

Nation. We are a major resource of high-quality professionals in all areas of ECE, from original investigators in robotics, nanotechnology, multimedia and clean energy – to analysts who use optimization techniques to study the stock markets, and telecommunication engineers who work on new wearable communication devices for first responders and rescue teams.

ECE is one of the oldest and strongest branches of Drexel University; we have been here since 1893. Our faculty members enjoy excellent national and



international reputations – among them are members of the National Academy of Engineering, IEEE Fellows, and high-ranking officers of professional associations. Our students are challenged, encouraged, and apply themselves to a wide range of projects and learning experiences, often making use of the Philadelphia-area infrastructure as laboratory for experiments and projects. Our alumni contribute to the world's economy, health, and environment – making contributions in every major industry, on every continent. Bar Codes and Packet Switching are just two of the many inventions made by our alumni. Student participation in co-operative education is an option selected by most of our students. By spending part of their college education in industry and getting a first-hand understanding of present-day engineering challenges, our students gain a significance competitive advantage in the marketplace upon graduation.



ELECTRICAL ENGINEERING

Electrical and electronics engineers conduct research, and design, develop, test, and oversee the development of electronic systems and the manufacture of electrical and electronic equipment and devices. From the global positioning system that provides drivers with their exact the location to portable media players such as the iPod® to giant electric power generators, electrical and electronics engineers are responsible for a wide range of technologies that make modern life possible, safer, and more enjoyable.

COMPUTER ENGINEERING

Computer engineers analyze, design, and evaluate computer systems, both hardware and software. They are responsible for the computers that control communication networks, cars, trains, banking systems, and large power networks with thousands of nodes. Computer engineers work on very small computers – sometimes embedded within sensitive sensing systems, medical diagnostic probes, and handheld multimedia mobile phones. They also work on very large networks of computers, such as clusters that solve difficult problems in cryptography, search for new material structures and seek formulas for new beneficial drugs.

SOFTWARE ENGINEERING

Computer software engineers apply the principles and techniques of computer science, engineering, and mathematical analysis to the design, development, testing, and evaluation of the software and systems that enable computers to perform their many applications.

TELECOMMUNICATIONS ENGINEERING

Telecommunications Engineers design, develop, test, and debug networks that allow a large number of humans and machines to communicate with each other reliably and securely. Often these networks require programs that control data traffic between numerous nodes that are geographically disperse; regulation of large cellular and satellite systems; and filtering of audio and video for telephones, personal computers, and wireless handheld devices such as BlackBerries and other personal digital assistants.