Why Join AUC’s Electronics and Communications Engineering Program?

• AUC provides quality professional education that advances the ideals of American liberal arts and a lifelong learning. As freedom of academic expression is fundamental to this effort, AUC encourages the free exchange of ideas and promotes open and ongoing interaction with scholarly institutions throughout Egypt and other parts of the world.

• The university environment is designed to advance proficient use of the tools of learning as well as students’ thinking capabilities, language and personal skills.

• Students are taught by outstanding faculty with PhD degrees from leading universities in the United States, Canada, Europe and Egypt.

• AUC has one of the best English-language libraries in the Middle East, equipped with state-of-the-art information access technologies.

• The campus includes up-to-date computer facilities and software as well as well-equipped experimental laboratories in nearly every specialty.

• Students have access to a rich and diverse student life with a broad array of extracurricular activities.

• A modern campus in New Cairo that is spacious, technologically advanced, environmentally sensitive and equipped with world-class educational resources.

Research

Faculty members are engaged in research in the areas of automatic recognition of handwritten text, the Internet of Things (IoT), machine-to-machine communications, wireless communication including spread spectrum systems, interference cancellation, diversity and coding, and broadcasting services. Faculty members work in the following areas: 

- Fault modeling and test for VLSI devices exposed to space radiation environment; failure analysis, fault modeling and test for VLSI devices exposed to space radiation environment; fault modeling, fault tolerance and testing of digital and analog signal circuits.
- Modeling, fault diagnosis, analysis of circuitous channels, analog-circuit systems, and noise in semiconductor circuits and technology.
- Experimental design and control systems.

- Research is conducted that analyzes and designs mitigation methods for leakage power, process variations, signal and thermal integrity in nanometer chips.

Accreditation

• AUC is accredited in the United States by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

• The Bachelor of Science in Electronics and Communications Engineering is accredited in Egypt by the Supreme Council of Universities in Egypt.

• The Electronics and Communications Engineering program is also accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).
The electronics and communications engineering curriculum requires a solid core of foundational courses in physics, mathematics, computer science and general engineering. Concentration courses in electronics and communications engineering that integrate theory and laboratory experience, as well as the capstone project at AUC are required, in order to prepare graduates to meet the expectations of employers and to pursue advanced studies, if desired.

Core Curriculum Requirements 36 credits

Communications engineering:

A total of 162 credits are required for the bachelor’s degree in Electronics and Communications Engineering.

Graduation Requirements

A list of 162 credits are required for the bachelor’s degree in Electronics and Communications Engineering:

Core Curriculum Requirements 54 credits

Concentration Requirements 12 credits

General Electives 3 credits

Concentration Electives 12 credits

Facilities and Specialized Laboratories

The Electronics and Communications Engineering curriculum is served by well-equipped laboratories of the science departments and the specialized electronics and communications engineering laboratories. The Electronics and Communications Engineering Department currently has several multidisciplinary laboratories, with state-of-the-art equipment and software, to cover the areas of circuits, electronics, digital design, communications, computer engineering, computer science, physics, and electrical machines. The number of laboratories quadrupled in the new campus. The labs are organized in student shifts, with only one student per station.

Extracurricular Activities

The Electronics and Communications Engineering Association (ECEA) was established several years ago to serve the department’s students. In addition to academic and career enhancement, the ECEA organizes social activities that provide a sense of community within the Electronics and Communications Engineering program. Electrønics and Communications Engineering graduates have also pursued graduate degrees in top universities around the world such as Stanford and Harvard.

Mission

The mission of the Electronics and Communications Engineering program at AUC is to provide students with the highest quality education. The Electronics and Communications Engineering department commits to excellence in teaching and research, to provide students with the highest quality education. The Department of Electronics and Communications Engineering offers a Bachelor of Science in Electronics and Communications Engineering.

Admission Requirements

The Electronics and Communications Engineering program offers admission to freshmen who meet the following criteria:

- A total of 162 credits are required for the bachelor’s degree in Electronics and Communications Engineering.

- Core Curriculum Requirements

- Concentration Requirements

- General Electives

-Concentration Electives

Concentration Requirements 54 credits

Electronics and Communications Engineering Association

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The AUC library collection fully supports the Electronics and Communications Engineering program with materials ranging from recently published textbooks and references to current issues of relevant scientific journals. The library has an extensive electronic resources that are accessible by students on or off campus.

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