



**UNIVERSITÉ
FRANÇAISE
D'ÉGYPTE**

BACHELOR OF EMBEDDED SYSTEMS AND ROBOTICS ENGINEERING

School of Engineering

Overview

The Bachelor in Embedded Systems and Robotics Engineering is an Egyptian engineering degree after 4 years with a French Master's degree after 1 additional year of study, in partnership with Université de Haute Alsace (UHA), Université Technologique de Compiègne (UTC), and Université de CY Tech Cergy Paris. The language of study is English. Our students can benefit of student mobility for semester exchanges and summer internships at any of our partner French universities during their second, third and fourth studying years, or for an additional year of study to obtain the MSc degree. Thus, students earn an Egyptian national bachelor's degree in 4 years and eligible for the French master's degree and the CTI French certificate in one additional year from our French partner universities.

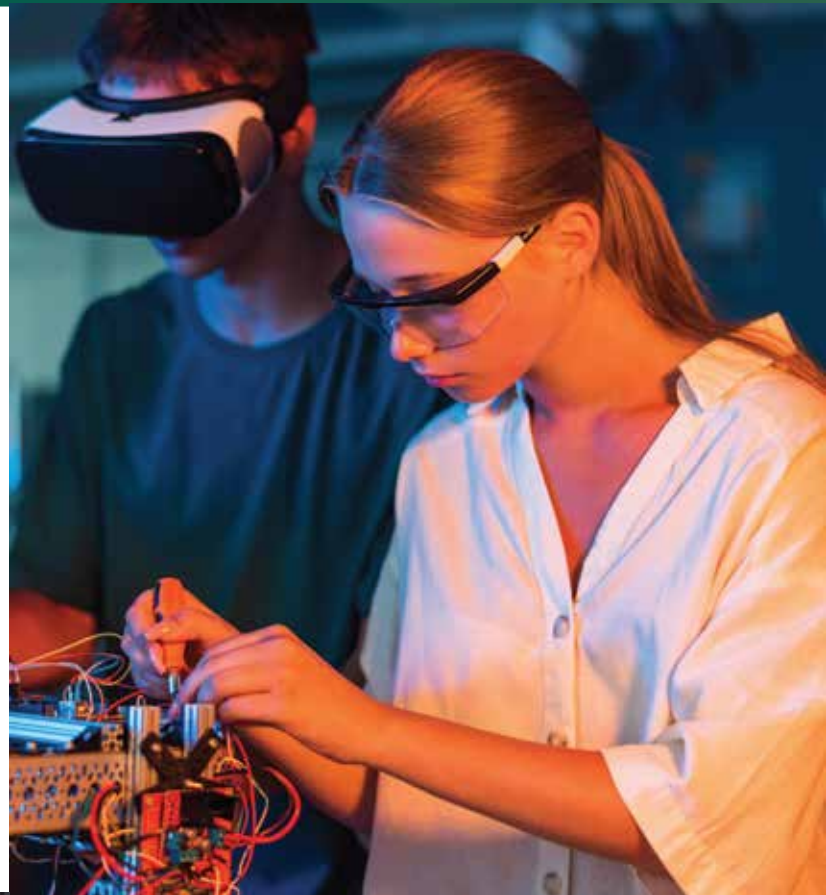
French Partner



Egyptian bachelor degree &
French Master degree
(+ 1 year)

WHY STUDY EMBEDDED SYSTEMS AND ROBOTICS ENGINEERING AT UFE?

- Get an Engineering bachelor's degree in 4 years.
- Only 1 additional year to earn a MSc degree from one of our highly reputable partner French universities. This includes a hands-on internship with a monthly salary in a French company. UFE Students are treated as national French students.
- Eligible for PhD studies worldwide after earning the French MSc degree.
- Hands on experience and summer internships in industry throughout the studying years for perfect bridging between academic and real-life practical experience.
- Hosting visiting professors throughout the studying years for international exposure and open-minded knowledge exchange.
- Semester exchange and summer internship programs with our partner French universities.



POSSIBLE CAREERS PATHS

- Robotics Engineer.
- Embedded Systems Engineer.
- Human Computer Interaction Engineer.
- Robotic / System QA Engineer.
- Embedded Software Engineer.
- System Design Engineer.



STUDY COURSES

YEAR 1 - SEMESTER 1

Mathematics 1.

Physical Mechanics.

Waves and Electromagnetism.

Introduction to Programming.

Ecological (Eco) design.

French Language.

English Language.

YEAR 2 - SEMESTER 1

Technical Drawing.

Introduction to Applied Mathematics.

Project.

Elective 1.

Languages Fr & En.

Software Engineering.

YEAR 3 - SEMESTER 1

Project Management.

Object-oriented Programming.

Operating Systems.

Advanced Statistics & Probabilities.

Problem Solving & Logic Programming.

Communication Skills.

Languages Fr & En.

YEAR 4 - SEMESTER 1

Computer Automatic Control.

Sensors and Instrumentation.

Embedded Systems Engineering.

Cloud Computing & IoT.

Computer Graphics.

Language Fr/En.

Project.

YEAR 1 - SEMESTER 2

Mathematics 2.

Chemistry.

Geometrical Optics.

Logic Design.

Information Retrieval Techniques for Engineers.

Professional Project.

Languages Fr & En.

YEAR 2 - SEMESTER 2

Statistics and Probabilities.

Structure and Physical Properties of Materials.

Thermodynamics.

Project.

Elective 2.

Programming and Web Developments.

YEAR 3 - SEMESTER 2

Signal Processing.

Algorithms & Data Structures.

Operations Research.

Communication Systems.

Networks.

Marketing Strategies.

Languages Fr & En.

YEAR 4 - SEMESTER 2

Intelligent Machines.

Robotics Process Automation.

Computer Vision.

Legislation.

Graduation Project (could be an industrial internship).