UNIVERSITÉ FRANÇAISE D'ÉGYPTE

le cnam

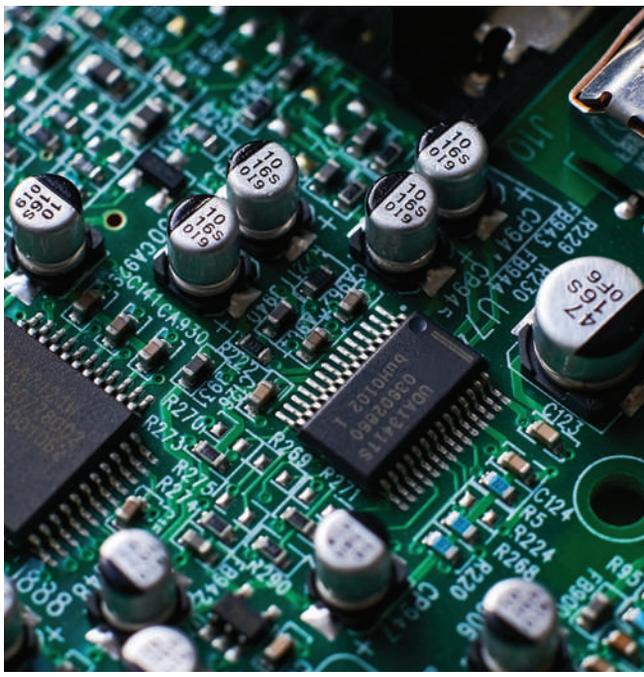
MASTER'S DEGREE IN COMPUTER NETWORKS AND IOT SYSTEMS

Overview

The Master's degree in"Computer Networks and IoT Systems" is a 2-year international program, offered in partnership with Le CNAM, Le Conservatoire national des arts et métiers in France, and recognized in Egypt. Taught in English, this master's degree is meant for computer engineers and computer science graduates willing to become experts of digital infrastructure technologies, going from network and cloud infrastructure solutions to embedded systems, edge computing, IoT systems and applications.

WHY STUDY MASTER'S IN COMPUTER NETWORKS AND IOT SYSTEMS?

- Learn from a diverse array of expertise provided by distinguished Egyptian and French professors.
- Gain hands-on experience in a set of novel technologies driving the digital society evolution, related to Network Virtualization, Internet-of-Things (IoT) protocols and architectures, IoT device design, Artificial Intelligence and Machine Learning integration in network and embedded systems, Software-Defined-Networking, Cloud Networking, 5G and beyond 5G architectures.
- Become an expert computer engineer in current and novel technologies underpinning smart infrastructures.
- Pursue a PhD degree in France, Europe or Egypt.



Program duration	**2 years**
European Credits (ECTS)	**120**
French Partner University	**Le CNAM, Le Conservatoire national des arts et métiers**
Faculty within UFE	**Engineering and Architecture**
Degree type	**French Master's degree, recognized by the 47 member countries of the Europe Council**

POSSIBLE CAREER PATHS:

- IoT Network Engineer or Architect
- Cybersecurity Engineer
- Embedded Systems Engineer or Designer
- Sustainable AI Engineer
- IoT Security Engineer
- Cloud Computing Engineer

PROGRAM CONTENTS:

le cnam
école d'ingénieur·e·s

SEMESTER 1

-Network Architecture

-Sustainable IoT Technologies

-Next Generation IEEE 802.11 standards

-Big Data Technologies for Connected Industries

-FLE - French as foreign language

Electives:

-Operating Systems and Computer Architecture

-Internet of Things

-Operations Research

-Wireless Mobile Networks

-Refresh in C & Bash Programming

SEMESTER 2

-Network Security

-Data Management and Digital Transformation in Industrial Process Automation

-Advanced Python Programming

-Applications of AI and Cyber-threat Management

-FLE - French as foreign language

Electives:

-WiFi and 5G Convergence in 6G

-Computer Systems Modeling and Verification

-Applied Artificial Intelligence

-Integration of Virtual and Augmented Reality Technologies in Connected Industries

-Scientific Communication I - Disseminating

SEMESTER 3

-FPGA Platforms: Programmable Embedded Systems

-Programming and Communication of a Robotic Arm

-Network Virtualization and Automation

-Performance Evaluation for Connected Systems

-Advanced Experimental Projects

-Artificial Intelligence and Machine Learning for Connected Systems

SEMESTER 4

-Internship or Master Thesis

Electives:

-Smart Industry 4.0 Systems

-Robot Predictive Maintenance

-Embedded Systems: Applications and Cybersecurity

-Green AI Computing for Connected Industries

-Communications for Precision Agriculture and Farming

-Scientific Communication II Dialoguing

ADMISSIONS CONDITIONS:

Admission to this master's degree program is open to all bachelor's degrees in computer science, computer engineering, software engineering, electrical engineering, communications, and telecommunications engineering.

UNIVERSITÉ FRANÇAISE D'ÉGYPTE

37 Ismailia Desert road,
Al Shorouk City, Cairo 11837, Egypt.

admission@ufe.edu.eg

20 127 111 2791
Mob: 20 155 108 4384
20 155 109 7287

17054

WWW.UFE.EDU.EG