Master of Science and Engineering
Embedded Electronics Systems

English taught program

Embedded Systems (ES) manage precise tasks in complete autonomy and in real time, providing solutions in a variety of industries: energy, health, transportation, and beyond. ES covers a wide range of skills in the fields of energy consumption, integration, data processing, and communications. The aim of JUNIA ISEN's Embedded Electronics Systems Master program is to **train engineers who master the material aspects (electronics) and software implications** (embedded systems or mobile applications) of high-tech systems that improve our everyday lives.

active pedagogy

Our Embedded Electronics Systems program is built on project-based learning, active teaching methods, and learning-by-doing. This hands-on approach gives students real world experience and, with our piecemeal curriculum, the power to decide how to build their own expertise.

projects

Semester-long team projects are an integral part of the curriculum. One day per week is dedicated to group projects in collaboration with a professional expert, partner company, or research institute and supervised by a JUNIA ISEN faculty member.

internships

Students spend 40% of the program immersed in real professional experience. These internships, carried out either in France or abroad, in a company or research center, expose students to the current reality of working and prepare them for entry into the global workforce.

LEARNING BY DOING

- Teaching and group projects supervised by professionals
- Innovation learning centers and Fab Lab
- Co-design labs with partner schools

EXAMPLES OF PROJECTS

- Real-time audio filtration in a digital circuit programmed to recognize key words with minimal consumption
- Connected wristband for athletic data
- Installation of a sensor network based on LoRa technology

EXAMPLES OF INTERNSHIPS

- Research and development in automation and robotics
- Development of an Energy Management System
- Electronic engineering internship

career prospects

Embedded systems are essential in controlling a vast array of devices ranging in size and complexity from consumer products and home appliances to aircraft and electrical grids. This widespread application creates an opportunity for IT engineers across industries. Some career prospects in embedded systems include embedded systems designer, communication electronics technician, systems integrator, tester, systems project leader, embedded applications architect, and more.

In addition to exceptional technical knowledge and managerial skills, JUNIA ISEN graduates are prepared for the reality of the professional world even before they get their diploma, which is why **100% of JUNIA ISEN alumni are employed within 6 months of graduating**. JUNIA ISEN's more than 26,000 alumni around the world work for some of the biggest names in electronics and digital technology or join and create their own startups thanks to the entrepreneurial mindset cultivated at JUNIA.

Practical information

admission requirements

- Bachelor's degree in Digital and Information Technology, IT Engineering or any related fields
- English B2 level certified by an official test IELTS, TOEIC, TOEFL IBT or FIRST
- Knowledge of French language is recommended, but not required for admission

application procedure

- Complete your online application on admissions.junia.com
- Have an individual interview (online)
- Application deadline: **May 15th, 2024**

financial aspects

Fees and other expenses

- Tuition fees : 9,000€ / year (18,000€ for the 2-year program)
- Living expenses in France: approx. €850/month
- Miscellaneous fees (insurance, visa...): approx. €650/year

Scholarships and Financial Aid

- Scholarships: refer to your local French embassy or Campus France Office
- Paid internships if carried out in France: min. €555/month
- French government housing allowance: approx. 90€/month

MASTER 1		ECTS
Fall Semester	Digital Microelectronics Circuits	3
	Labview: Basics	3
	Microwave Circuits	3
	C++	3
	Hands-on 32-bit ARM microcontrollers	3
	Technical Project S1	3
	Humanities & Management	5
	French as a Foreign Language	2
Spring Semester	Digital Programmable Circuits: FPGA & VHDL	3
	Advanced Digital Signal Processing	3
	Energy Harvesting	3
	Power Electronics	3
	Wireless Technologies & Applications	3
	Technical Project S2	5
	Humanities & Management	3
	French as a Foreign Language	2
Summer Internship	Three-month Internship	10

MASTER 2		ECTS
Fall Semester	System on Chip	3
	Mixed-Signal Integrated Circuits for Audio Applications	3
	High-Frequency Electronics	3
	Real-Time Computing for Embedded Systems	3
	Electives (choose one): Advanced LabVIEW	3
	Hardware for Artificial Intelligence	3
	Humanities & Management	5
	Innovation Project	10
Spring Semester	Six-month Internship	30

Course details are subject to change, please visit
***junia.com** for the latest information*

international student services

Dedicated support just for you

- Reservation of accommodation in a student residence
- Administrative procedures (visa, resident permit, etc.)
- Integration into student life (associations, activities, etc.)
- Welcome Session: intensive French language course, intercultural communication, orientation week, social events, and more

JUNIA Grande école d'ingénieurs
HEI·ISEN·ISA

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Cti Commission des titres d'ingénieur