

SCIENCES, TECHNOLOGIES AND HEALTH

Master in Integration, Security and TRust in Embedded systems 2nd year / MISTRE Valence

Master in Electronics, electrical energy, automation



Target level
Baccalaureate
+5



ECTS
60 credits



Duration
1 year



Component
Grenoble
INP - Esisar
(Systèmes
embarqués
et réseaux
intégrant
électronique,
informatique et
technologies
embarquées),
UGA



Language(s) of
instruction
English

Presentation

MISTRE Valence focuses on critical and secure embedded systems: smart systems (car, building,...), IoT, distributed systems etc.



Why choose this Master Program

- Embedded systems are everywhere (IoT, cars, buildings, etc.)
- Safety and security of embedded systems are major concerns for our societies
- Strong connection with industry and laboratories which offer many jobs and PhD positions
- Master courses and practical work with the quality of Grenoble INP
- International experience with a deep integration among local French students.



Main thematic: Electronic Engineering / Computer Engineering / Computer Science / System Control [↗](#)

International dimension

International exchange students are allowed to follow this master program, in the limit of the 16 places available.


For more details please [↗ click here](#)

Admission

Access conditions

- **Computer Engineering:** Digital Design (VHDL/Verilog, FPGA), Embedded Programming, Processor Architecture
- **Computer Science:** C and Java programming language

Candidature / Application

 FSA online application form

- ID Document
- CV and motivation letter
- Two recommendation letters
- Transcripts (copy of your last diploma obtained, transcripts of the two previous academic years and of the present academic year)
- Proof of B2 level in English (previous studies in English or English language certificate)

Application files will be assessed during one of the **3 admission committees**. The deadlines for application are:

- January 31st, for the February 10th admission committee;
- March 27th, for the April 7th admission committee;
- May 31st, for the June 9th admission committee.

Fees

The institution applies the rules incurring the payment of differentiated fees by non-E.U students.

The full amount of the owed registration fees is not necessarily to be paid at the start of the academic year: an instalment plan of payment may be scheduled.

In addition, the admitted students will receive information about the various scholarships available to Grenoble INP-UGA students."

Prerequisites

- **Electronic Engineering:** General Electronics, Signal Processing, Modulation/Demodulation, RF Electronics basics, Antennas basics
- **Computer Engineering:** Digital Design (VHDL/Verilog, FPGA), Embedded Software Programming, Processor Architecture (RISC & ARM)
- **Computer Science:** C programming language, Bases of Object-oriented programming (Java), Graph theory basics, Operating System basics (Linux system programming)
- **System Control:** Scientific computing (ODE time integration), State Space Approach

And after

Targeted trades

Careers

Examples of job opportunities:

- Embedded Software/Hardware Engineer or Developer
- Hardware Cybersecurity Engineer
- Distributed Systems Engineer

PhD opportunities:

Example of thematic:

- Hardware/Software Embedded and Communicating Systems
- Hardware/Software Security or Safety
- Distributed Systems Design
- System Control

Useful info

Contacts

Program director

Yann KIEFFER

Administrative contact


Florence Boulay

 mistre-int-staff@esisar.grenoble-inp.fr

Course location(s) - City

 Valence

Campus

 Valence - Laffemas

Program

Organization



All the courses are taught in English

- **1st semester: 330 hours of class- 30 ECTS**
 - **2nd semester: Internship – 30 ECTS**
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Specifics of the program

LIST OF COURSES:

- [🔗 Semester 1](#)
- [🔗 Semester 2](#)