GRENOBLE INP UGA Esisar VALENCE

Engineering school in intelligent secure systems

Bonjour et Bienvenue

École nationale supérieure en systèmes avancés et réseaux
50 rue Barthélémy de Laffemas CS 10054
26902 Valence Cedex 09 - France

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

Esisar : Engineering school in intelligent secure systems

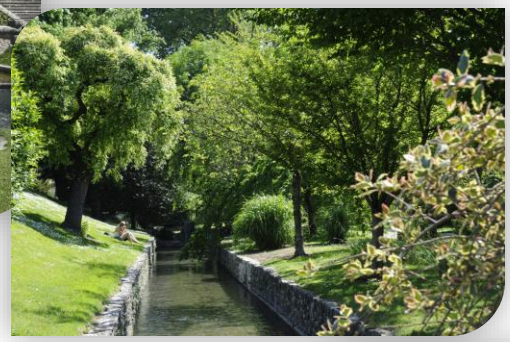
5 years school **500** students in **Valence**

- ✓ **2 years preparatory classes**
- ✓ **3 years engineering programs**
- ✓ **1 international master**

- School with a human dimension
- Close links with industry
- Innovative working environment
- Accessible teaching team
- Practical experience at the heart of our pedagogy.

Valence, an attractive destination: Heritage, Culture, Nature

Jouvet park



Heritage

Canoe

Nature

Biking

Climbing

Ski

Valence, the twin city of Ijevan, in Armenia.

The Armenian community in Valence, France, is one of the largest in the country. It consists of approximately 10 000 to 12 000 Armenians.

Valence and its surrounding areas are known for having welcomed a large part of the Armenian diaspora.

The community is well integrated and continues to preserve its traditions and culture, with schools, churches, and various Armenian associations.

The twinning between Valence and Ijevan was established in 1996, strengthening the cultural and historical ties between the Armenian community of Valence and Armenia.

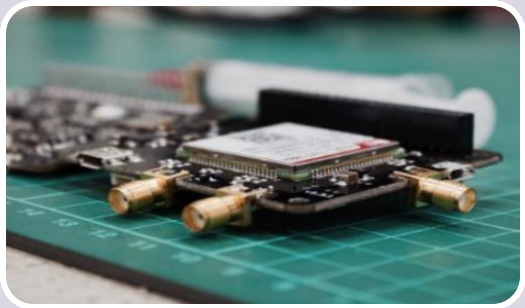
Engineering Programs

Secure Information Systems

- Software development: algorithmics, software engineering, language theory, compilation
- Networks: architecture, interconnections, services and applications
- Security: cryptography, network and systems security, software security, hardware/software security
- Operating systems: principles, architecture and administration

Secure Embedded Systems

- Algorithmics, Design, Program implementation
- Embedded development: from design to runtime
- System security: from hardware to software
- Hardware and software validation
- Embedded system design (languages, hardware architecture, FPGA design)



Communicating Embedded Electronic Systems

- Analog and embedded electronics
- Sensors and associated systems
- Digital electronics
- Hardware/software design
- Embedded computing
- Radiofrequency (RF) and communicating object

Embedded Control-Command Systems

- Servo systems, control theory, advanced control
- Identification, analysis and simulation of dynamic systems
- Implementation on real-time embedded systems
- Design/Engineering of autonomous systems
- Distributed control of large-scale systems

Industrial Projects: Innovation!

- Pedagological training method

Learning by project

Validation of competences

- Collaboration between Esisar and companies

Respect of industrial propriety

Confidentiality engagement

- 1 semester full time

- Team work

3 or 4 students for each project

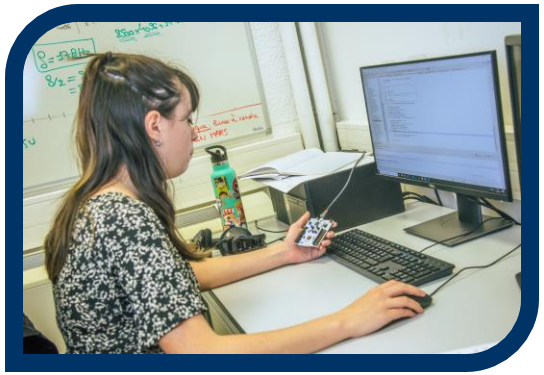
- R&D Dynamics

Pedagogical and scientific support

Experienced project manager support

Laboratory & Platform expertise

+350	+600	25/30	+55%
Partner companies	Achieved projects	Projects each year	Small companies



International Master IMESS in Embedded Security Systems (1 year) - 60 ECTS

Fall semester (30 ECTS)

Courses all in English

Mandatory courses:

- Innovation project (4 ECTS)
- Dependability and Security of computing Systems (5 ECTS)
- Verification and Test of safe and secure embedded systems (5 ECTS)
- Embedded Systems Security (5 ECTS)
- Advanced Processor Architecture and SoC Design (5 ECTS)
- French courses (1 ECTS)

Optional courses (choose 1):

- Decentralized control of complex systems (5 ECTS)
- UHF RFID Technology (5 ECTS)
- Cryptography and Secure protocols for embedded systems (5 ECTS)

Spring semester

Final study project:

- Internship in a company or a laboratory (22 weeks) 30 ECTS

1230 € for Armenien students instead of 5000 €

CYBERSECURITY AT ESISAR

https://www.csaw.io/

CSAW [see-SAW] is the most comprehensive student-run cyber security event in the world, featuring 7 cyber competitions, workshops, and industry events. Final events are hosted by 5 global academic centers.

5 global regions

19 years

1420 qualification teams

7 competitions

128 finalist teams

150 career fair

3142 annual competitors

COMPETITIONS

- Applied Research Competition
- Embedded Security Challenge
- Capture The Flag
- Red Team Competition

CSAW'24 : 6-9 Nov 2024

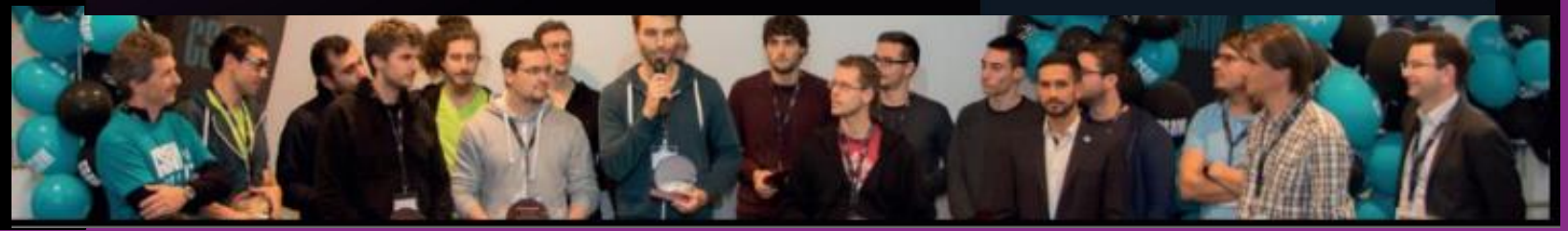
CSAW'23 EUROPE

130 FINALISTS

14 COUNTRIES

35 UNIVERSITIES

9 FRENCH HIGH SCHOOLS



Welcome International Students

The international office with the support of the International Students & Scholars Office (ISSO) team help the international students for all their settling procedures and everyday life practical matters: accommodation, visa validation, residence permit applications, health, budget, insurances, daily life, etc.

Esisar Students associations offer international students a variety of events throughout the year.

Armenia → Esisar France

- Spring Semester (nomination before end October) :
  - Internship in LCIS laboratory : https://lcis.fr/
  - Industrial project (team work) : https://esisar.grenoble-inp.fr/en/academics/industrial-project
- Fall Semester (nomination before 15 April)
  - Academic semester engineering degree
  - Academic semester IMESS : https://esisar.grenoble-inp.fr/en/academics/master-program#page-presentation

This semester can be followed by an internship in France.

Armenia → Grenoble INP schools

- Phelma : School of engineering in Physics, Applied Physics, Electronics & Materials Science

https://phelma.grenoble-inp.fr/en/studies/engineering-degree

- Ense3 : Graduate School of engineering Energy, Water and Environmental sciences

https://ense3.grenoble-inp.fr/en/study-at-ense3/exchange

- Pagora : Graduate school of engineering in paper, print media and biomaterials

https://pagora.grenoble-inp.fr/en/education/exchange-student-courses-in-english

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