GRENOBLE INP UGA

Esisar VALENCE

École nationale supérieure en systèmes avancés et réseaux

Engineering school in intelligent secure systems

Bonjour et Bienvenue

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RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

UGA
Université
Grenoble Alpes

Top 150 universities in the world *Shanghai Ranking of World Universities*

33^rd^ most innovative university in Europe *Thomson Reuters*

Top 50 worldwide in 6 subjects:

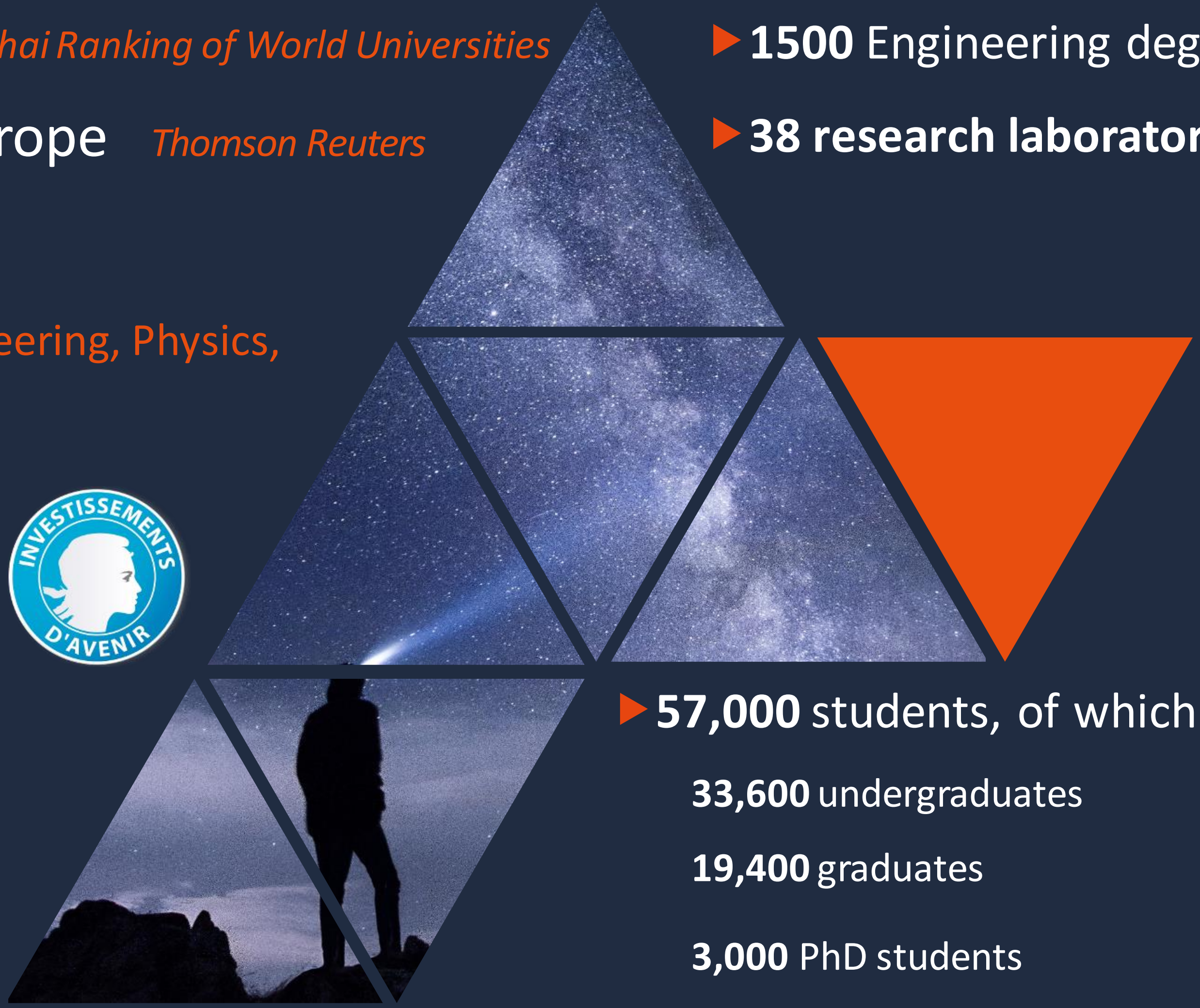
Remote sensing, Earth Sciences, Metallurgical Engineering, Physics, Clinical Medicine, Quantum engineering

UGA is **one of 9** universities in France to have the IDEX Label and is recognized as an **internationally competitive centers of excellence** in **higher education and scientific research.**

INVESTISSEMENTS D'AVENIR

UGA **Interdisciplinary Strengths**

- Sustainable development & society
- Health, well-being and technology
- Digital Technology
- Innovation



- **1500** Engineering degree / year
- **38 research laboratories**
- **57,000** students, of which
  - **33,600** undergraduates
  - **19,400** graduates
  - **3,000** PhD students
  - **10,300** international students

Grenoble INP - UGA

Graduate schools of Engineering and Management

7 engineering schools & 1 school of Management

Grenoble INP - Ense³, UGA
Energy, Water & Environmental Sciences

Grenoble INP - Ensimag, UGA
Applied Mathematics & Computer Sciences

Grenoble INP - Esisar, UGA
Advanced Systems & Networks

Grenoble INP - Génie industriel, UGA
Industrial Engineering & Management

Grenoble INP - Pagora, UGA
Paper, print Medias & Biomaterials

Grenoble INP - Phelma, UGA
Physics, Electronics, Materials

Polytech Grenoble - INP, UGA
7 specialties of Engineering

Grenoble IAE - INP, UGA
Graduate school of management

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

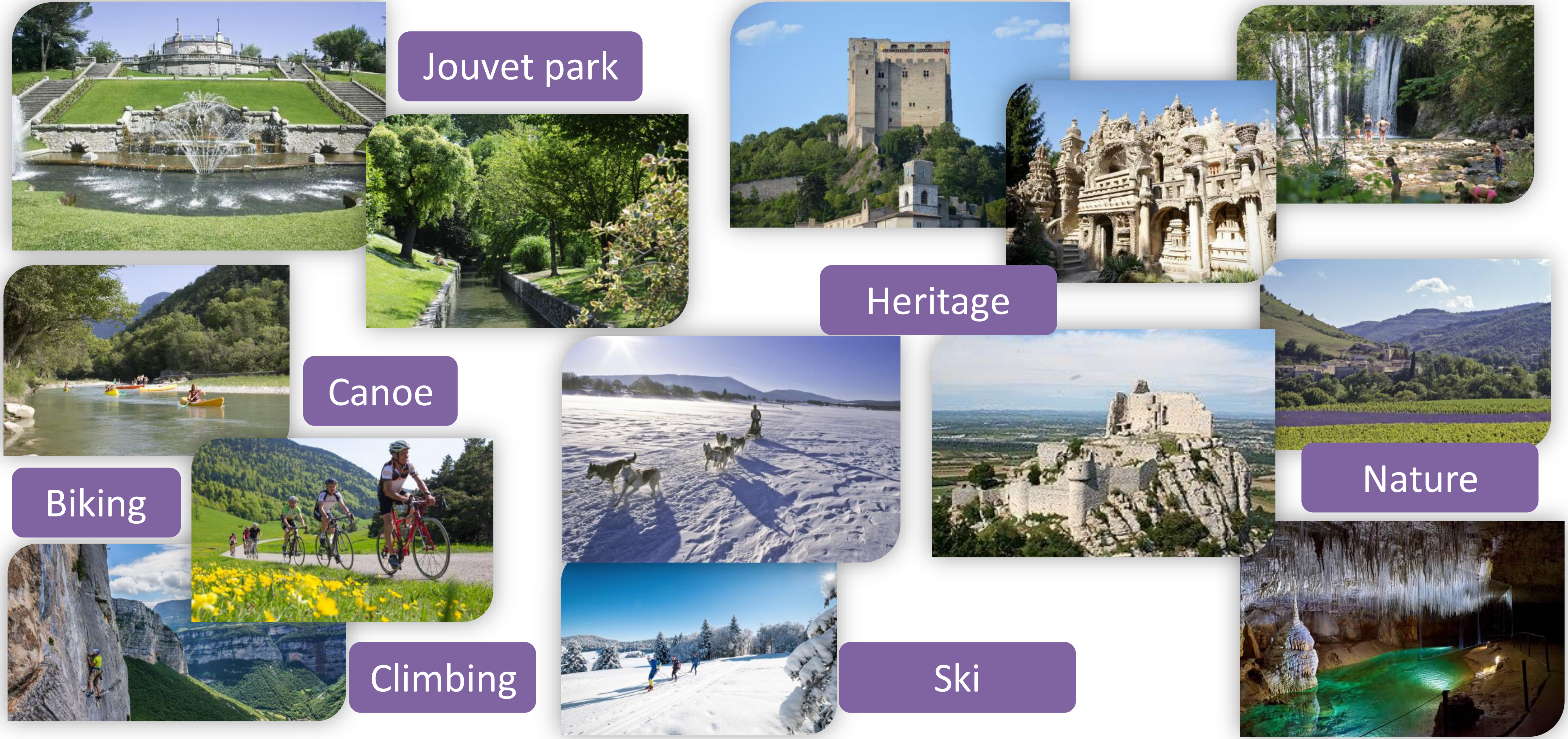
Close links with industry

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

Biking

Climbing

Ski

Nature

Valence, the twin city of Ijevan, in Armenia.

CENTRE DU PATRIMOINE ARMENIEN
LE cpa
CENTRE DU PATRIMOINE ARMÉNIEN

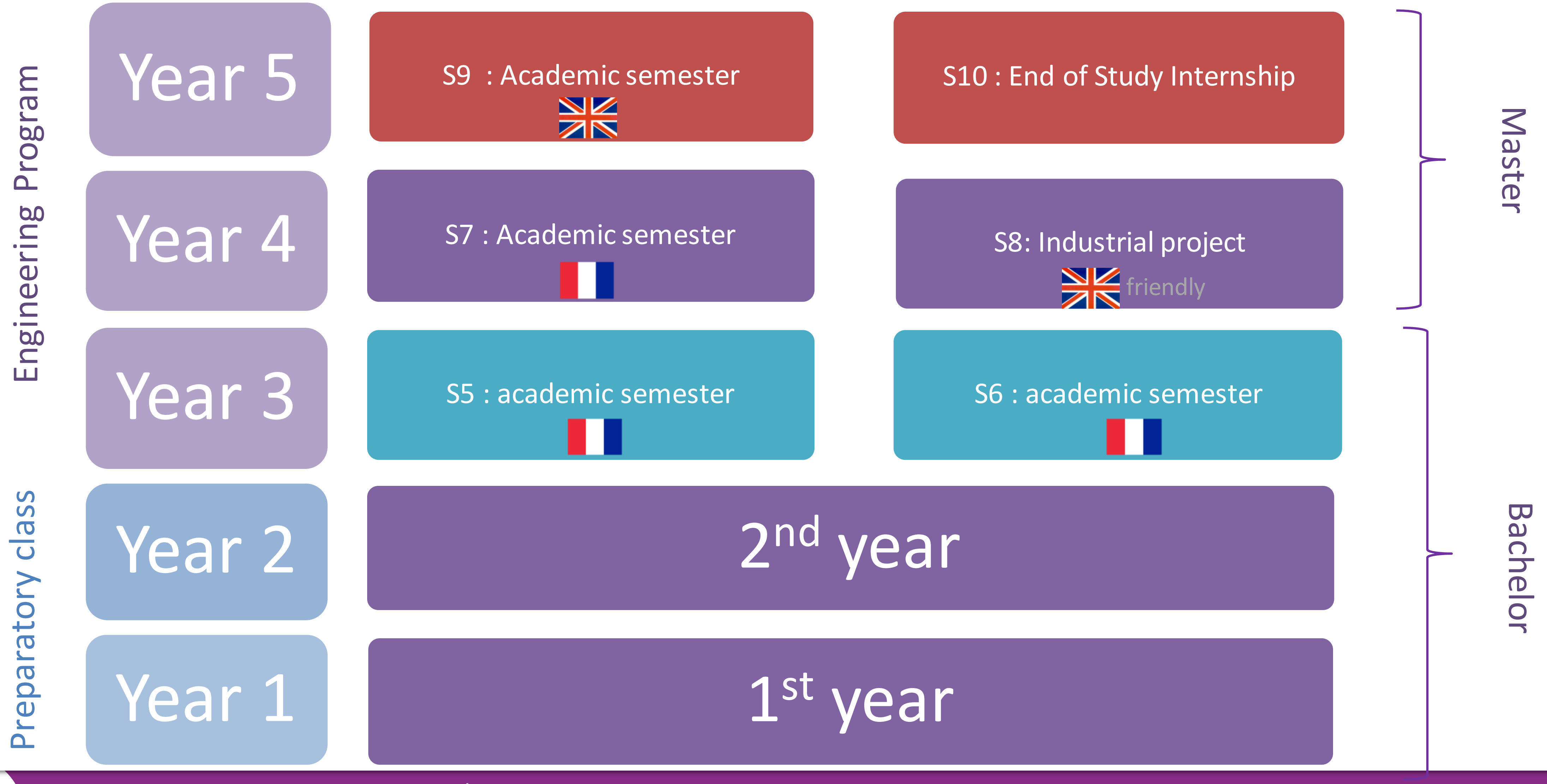
The Armenian community in Valence, France, is one of the largest in the country. It consists of approximately 10 000 to 12 000 Armenians.

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.

Esisar : 5 years Engineering school



Engineering Program	Year 5	S9 : Academic semester 🇬🇧	S10 : End of Study Internship	Master
	Year 4	S7 : Academic semester 🇫🇷	S8: Industrial project 🇬🇧 friendly	
	Year 3	S5 : academic semester 🇫🇷	S6 : academic semester 🇫🇷	Bachelor
Preparatory class	Year 2	2nd year		
	Year 1	1st year		

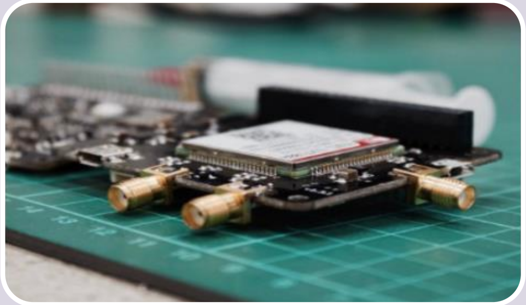
Engineering Programs

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

Exchange possible for 1 academic semester (S9) or 2 semesters (S9 + S10 : Internship)

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

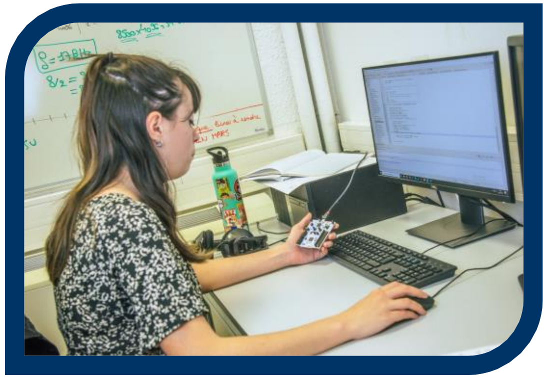
- R&D Dynamics

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)

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)

Courses all
in English

Spring semester

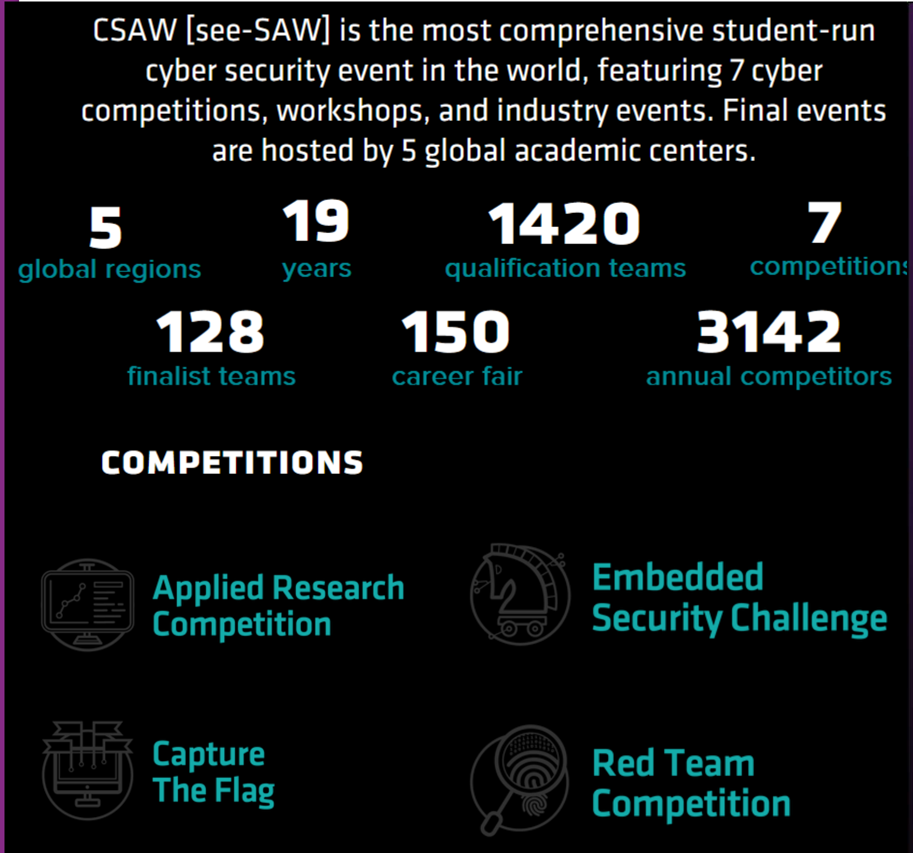
Final study project:

- ➢ 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	19	1420	7
global regions	years	qualification teams	competition

128	150	3142
finalist teams	career fair	annual competitors

COMPETITIONS

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

CSAW'23 EUROPE

130 FINALISTS

14 COUNTRIES

35 UNIVERSITIES

9 FRENCH HIGH SCHOOLS

CSAW'24 : 6-9 Nov 2024

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.

GALA ESISAR

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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