

# ADVANCED MASTER EMBEDDED SYSTEMS (EMS)



Niveau d'étude visé  
BAC +6



Diplôme  
Mastère spécialisé



Domaine(s) d'étude  
Ingénierie  
aéronautique et spatiale



Accessible en  
Formation initiale,  
Formation continue



Établissements  
ISAE - SUPAERO, INP - ENSEEIHT

## Présentation



The Embedded Systems Master Program has been defined to provide the industry with well-trained engineers willing to participate in this challenging environment.

## Objectifs

The Embedded Systems Advanced Master Program provides comprehensive training for engineers willing to be a part of the aerospace industry. This Embedded Systems Master Program is a one-year professional course, designed by INP-ENSEEIH and ISAE-SUPAERO partners with the support of the embedded systems industry to prepare students for challenging aerospace projects. This program focuses on a multidisciplinary approach and prepares students by passing on in-depth and comprehensive knowledge of the technologies underpinning embedded systems with an emphasis on aerospace. The program focuses on both theoretical and concrete aspects and aims at:

- Developing Embedded-Systems engineering design skills at both system level and function level, built on a solid foundation of complementary subjects: electronics, computer

science, energy conversion and management, automatic control, telecommunications and networks;

- Developing a system approach through integrated projects to masterspecific methods and tools as applied to the following domains aeronautics, space and the automotive industries. The curriculum is multidisciplinary. It covers hardware (electronics, energy), software (computer science, network links, modeling, analysis and certification) and such issues as Embedded Systems control from an integrated system perspective.



## Admission

### Conditions d'admission

The applicants must hold the following degrees:

- \* A **Master's Degree** or an equivalent degree

- \* Or a **Bachelor's Degree** with at least 3 years of professional experience
- \* International degree equivalent to the aforementioned degrees.

For candidates who do not meet these conditions but can justify 5 years of significant professional experience, these programs can be accessed via the Validation of Professional and Personal Acquisitions - VAPP

## Et après...

### Insertion professionnelle

#### CAREER OPPORTUNITIES

Embedded Systems offer challenging career opportunities. The skills acquired in this Master's course can be applied to any industrial sector in which embedded systems are used: aeronautics, space, road, rail and sea, energy industry, communication systems...

Career opportunities in this area are numerous and on the increase in large and small companies alike.

#### CAREER OUTCOMES

- R&D Engineer
- Designer
- Project Manager
- Embedded systems developer

You can find on this [page](#) the job survey concerning our last Advanced Masters graduates

## Contact(s)

### Autres contacts

For more information, please visit the EMS Advanced Master [webpage](#)

If you have any question:

- if you are a student, please contact [info-programmes@isae-superaero.fr](mailto:info-programmes@isae-superaero.fr)

- if you are a professional, please contact [info.exed@isae-superaero.fr](mailto:info.exed@isae-superaero.fr)

## Accessibilité des lieux et modalités d'enseignement aux étudiants en situation de handicap

The Advanced Master is accessible to persons with disabilities (PSH).

In the event that a learner is in a situation of disability, his or her needs (whatever they are educational, material, technical, human, etc.) are taken into account by the ISAE-SUPAERO's Disability Advisor. ISAE-SUPAERO provides the expertise, the tools, and the networks needed to facilitate the access to premises and resources, to prepare certifications and take examinations.

## Infos pratiques

### Lieu(x)

 Toulouse

### En savoir plus

ADVANCED MASTER EMBEDDED SYSTEMS (EMS)

<https://www.isae-superaero.fr/en/academics/advanced-masters/programs/advanced-master-embedded-systems-ems/>

# Programme

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## Organisation

### **1st semester:**

Part 1: Embedded Systems - Core

Part 2: Energy

Part 3: Networks

Part 4: Embedded Systems Design

Part 5: Embedded Systems Applications

### **2nd semester:**

Students are required to conduct a 4 to 6 months professional thesis or internship

- with an aerospace company or in a laboratory
- in France or Abroad supervised by a tutor from the host organization and from ISAE-SUPAERO.

The thesis concludes with the submission of a report and an oral dissertation in front of a thesis committee.