

# PRINCIPLES OF THE EDUCATIONAL MODEL

The Universitat Jaume I's educational model is based on ten principles that are closely interrelated, and which cannot be understood without considering them as a whole:

- 1. Comprehensive development of students
- 2. Fostering of ethics and social responsibility
- 3. Commitment to development and social and territorial cohesion
- 4. Encouragement of the vocation for research

- 5. Increased internationalisation
- Commitment to Valencian as the institutional language and to multilingualism
- 7. Encouragement of the use of ICTs
- 8. Continuous improvement of quality
- 9. Promotion of employability and a smart entrepreneurial spirit
- 10. Promotion of lifelong learning



## Further information:

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### Información académica:

Academic information: Master's Degree in Marine and Maritime Intelligent Robotics

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# Master's Degree

# Marine and Maritime Intelligent Robotics

**Engineering and Architecture** 



# Marine and Maritime Intelligent Robotic



### Presentation

The (MIR) Marine and Maritime Intelligent Robotics Master innovatively combines robotics and artificial intelligence (AI) in the context of advancing marine and maritime science and their technological applications. Students follow the MIR programme over 2 years (4 semesters / 120 ECTS). The first year in France – Semester 1 and Semester 2 – at the University of Toulon (UTLN) commences by building up a solid background in marine science, robotics and AI. During the second year, in Semester 3 students choose to specialise in one of the three study tracks, namely, Applied Robotics for Underwater Intervention Missions, at the UJI, Spain; Safe Autonomous Subsea Operations, at NTNU, Norway; or Cooperative Marine Robotics for Scientific and Commercial Applications, at IST-UL, Portugal. Semester 4 is devoted to a master's thesis in the context of a research or industry internship. It is carried out at any of MIR's main or associate partners, always under the co-supervision of a main partner.

#### Coordinators

Pedro José Sanz Valero. Engineering and Computer Science Department. UJI.

### Additional information

Coordinating university: Université de Toulon (France)

Partner universities: Universidade de Lisboa (Portugal), Norges teknisk-naturvitenskapelige universitet (Norway) and Universitat Jaume I.

Number of credits: 120 ECTS (European Credit Transfer System)

**Duration**: Two academic years **Language of instruction**: English

Mode of study: Face-to-face learning

# Course structure [24 places. 6 places in UJI]

Distribution of subjects	ECTS
First year, first semester (30 ECTS)	
Block 0: Transversal skills	4
Block 1: Marine Environment	7
Block 2: Robotics and Control	10
Block 3: Artificial Intelligence	9
First course, second semester (30 ECTS)	
Block 0: Transversal skills	3
Block 1: Advanced Marine Intelligent Robotics	15,5
Block 2: Joint Marine Intelligent Robotics Study Track courses	4,5
Block 3: Applied marine intelligent robotics and Industry seminars	7
Second course, first semester (30 ECTS)	
STUDY TRACK 1: Applied Robotics for Underwater Intervention Missions – UJI SPAIN	30
STUDY TRACK 2: Safe Autonomous Subsea Operations – NTNU NORWAY	30
STUDY TRACK 3: Cooperative Marine Robotics for Scientific and Commercial Applications —IST —UL, PORTUGAL	30
Second course, second semester (30 ECTS)	
Master's Thesis (TFM)	30
Total	120