

ONLINE WEBINAR

Foto: Slejven Djuraković Wed 8 15:00 CET.

# Presenting the new Erasmus Mundus joint master in **ARTIFICIAL INTELLIGENCE**

<https://www.emai-master.eu/>



**EMAI**

Erasmus Mundus joint  
Master in Artificial  
Intelligence

Course 2023-2025



**Co-funded by  
the European Union**

## Roadmap

<https://www.emai-master.eu/>

1. The EMAI programme in short
2. Frequently Asked Questions
3. Q & A

## Consortium Partner universities:

- Universitat Pompeu Fabra, Barcelona, Spain
- Sapienza Università di Roma, Rome, Italy
- Radboud Universiteit Nijmegen, Nijmegen, The Netherlands
- Univerza v Ljubljani, Ljubljana, Slovenia

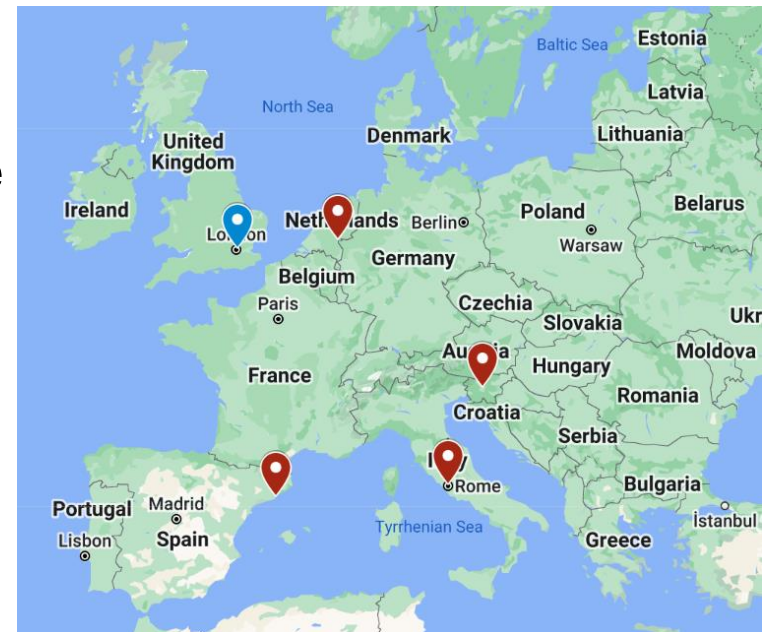


## Distinguished Associated Partner:

- UCL Centre for Artificial Intelligence  
London, UK



+ 17 Associated Partners



# The EMAI programme in short

# Why should you join us?

The EMAI offers you

- A unique academic offer based on four universities of academic and research excellence, with four possible specialisations:

- **Intelligent Decision Making** in Barcelona
- **Robotics** in Rome
- **Cybersecurity** in The Netherlands
- **Data Science** in Ljubljana



SAPIENZA  
UNIVERSITÀ DI ROMA



Radboud  
University  
Nijmegen



University of Ljubljana

- As an EMJM, the EMAI provides fee waivers and attractive Erasmus Mundus scholarships



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- **Fee waiver:** A Fee Waiver covers the costs of the Tuition Fees of your first and second year of study
- **EU-funded Scholarships:** €1,400/month for the full length of the programme (travel, installation and subsistence costs)
- **Admission periods** for first edition 2023/2025
  - Fee Waiver AND scholarship (closes on **March 1st**)  
*Up to 20 students*
  - Fee Waiver, self-payd students (closes on **June 5th**)  
*Up to 5 students*

# Calendar for the 1st edition



- **April:** Notification of Fee waiver and scholarships students
- **June:** Notification of Fee waiver and non-scholarships students
- **June - July:** Student reception in Barcelona and student contract
  - VISA, Bank account, insurance, mobility plan for 1st year
- **September:**
  - Enrollment in 1st year courses
  - Welcome Event in Barcelona
  - Beginning of the 1st Semester





- **EMAI courses (30 ECTS, 6 ECTS each course)**
  - Autonomous Systems
  - Introduction to Machine Learning
  - Symbolic Reasoning
  - Reinforcement Learning
  - Natural Language Interaction



## 2nd semester

In one of the other partner universities (starts in Jan/Feb 2024)

2nd Semester



**SAPIENZA**  
UNIVERSITÀ DI ROMA

- Human-Robot Interaction
- Artificial Intelligence
- Vision and Perception

+Two Elective from:

- Internet-of-Things
- Interactive Graphics
- Data Management for Data Science

21 feb - 27 may



**Radboud  
University  
Nijmegen**

- Machine Learning in Practice
- Physical Aspects on Secure Systems
- Natural Computing

+Two Elective from:

- Applied Cryptography
- New Media Lab
- Intelligent Systems in Medical Imaging

25 Jan - 29 Aug



University of Ljubljana

- Big Data
- Machine Learning for Data Science 1
- Data Science Project

+Two Elective from:

- Network Analysis
- Natural Language Processing
- High Performance Computing

Spring sem: mid Feb – end May  
Summer exam: beg June – end June

## 2nd year: Special Events

### Summer School (July 2024)



- Cumberland Lodge (Windsor Great Park, London)
- 3 days of presentations from leading researchers in AI and training on topics of AI Ethics and regulation, AI Entrepreneurship, and AI for Good projects

### Spring Meeting (April 2025)



- 1st and 2nd year EMAI students will meet each other and share their experience and build the community of EMAI students
- Intensive training in research methods, with special emphasis in the human-centric perspective of AI

## 2nd year Specialisation

### UPF in Barcelona: Intelligent Decision Making



**Universitat  
Pompeu Fabra  
Barcelona**

**Intelligent  
Decision Making**

Research Methodology (5 ECTS)  
Critical Data Studies (5)  
Advanced Topics on Intelligent Systems (5)  
Master Thesis (30)

+ 15 ECTS from elective

*Elective:* Research Internship (15)  
Mobile Robotics (5)  
Probabilistic Graphical Models (5)  
Data-driven Social Analytics (5)

## 2nd year Specialisation

## Sapienza in Rome: Robotics



**SAPIENZA**  
UNIVERSITÀ DI ROMA

Robot Programming (3 ECTS)  
Robotics I (6)  
Seminars in AI and Robotics (3)  
Final Exam (Master Thesis) (30)

+ 18 ECTS from elective

*Elective:*

- Planning and Reasoning (6)
- Formal Methods (6)
- Knowledge Representation (6)
- Advanced Topics in AI & Robotics (6)
- Robotics II (6)
- Medical Robotics (6)

**Robotics**



## 2nd year Specialisation

### RU in Nijmegen: Cybersecurity



**Radboud  
University  
Nijmegen**

Capita Selecta in Cyber Security (6 ECTS)  
Software Security (6)  
Selected topics on hardware for security (3)  
Master Thesis (30)  
+ 15 ECTS from elective

**CyberSecurity**

*Elective:*

Research Internship (15)  
Security in Organisations (6)  
Information Retrieval (6)  
Deep Learning (3)  
Bayesian Networks (6)  
Advanced Machine Learning (6)  
Advanced Network Security (6)  
Research Seminar Data Science (6)  
Philosophy & Ethics for Computing and IS (3)

## 2nd year Specialisation

## UL in Ljubljana: Data Science



University of Ljubljana

Machine learning for data science 2 (6 ECTS)  
Deep Learning (6)  
Web information extraction and retrieval (6)  
Master Thesis (30)  
+ 12 ECTS from electives

*Elective:* Network Analysis (6)  
Natural Language Processing (6)  
High Performance Computing (6)  
Biomedical signal and image processing (6)  
Image based biometry (6)  
Principles of uncertainty (6)  
Advanced Methods in Computer Vision (6)

Data Science



## 2nd year

### Internship (15 ECTS, optional)

- UPF and RU offer internships
- In academy or industry
- Excellent opportunity to gain experience in future work field



### Master Thesis (30 ECTS)

- Full-time in 4th semester
- Research work: a mixture of practice in the design, construction and elaboration using scientifically sound methods and evaluation
- The thesis work will be considered for submission to scientific conferences

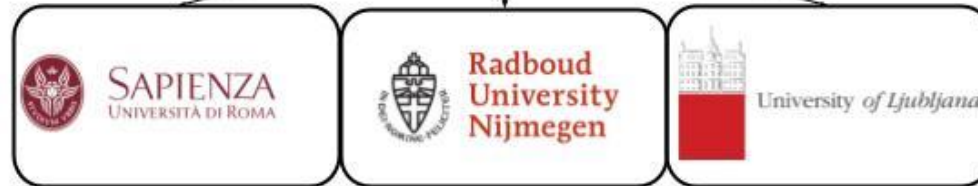


# Programme Structure

1st Semester



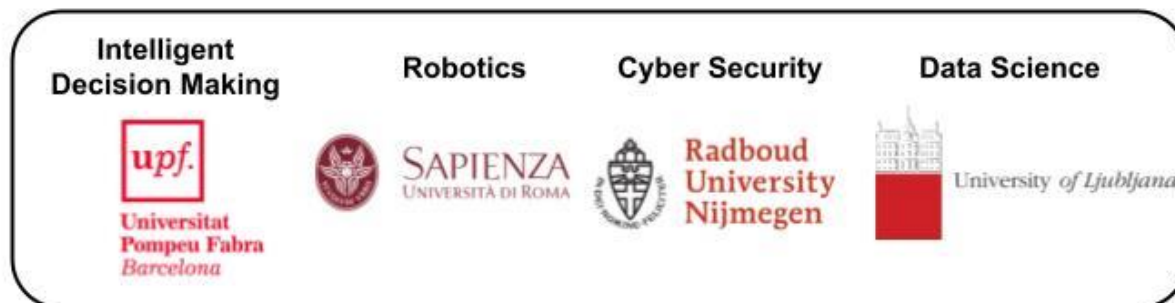
2nd Semester



Summer School



3rd and 4th Semesters (Specialisation)



## Important Mobility Requirement



**Two** periods (semesters) in **two** different countries than the **country of residence** at the beginning of the studies

Examples:

- You are a student with residence in Barcelona
  - ✗ 1st sem in **UPF**, 2nd sem in **RU**, 2nd year in **UPF**
  - ✓ 1st sem in **UPF**, 2nd sem in **RU**, 2nd year in **UL**
- You are a student with residence in Italy
  - ✗ 1st sem in **UPF**, 2nd sem in **Sapienza**, 2nd year in **UPF**
  - ✓ 1st sem in **UPF**, 2nd sem in **Sapienza**, 2nd year in **UL**
  - ✓ 1st sem in **UPF**, 2nd sem in **RU**, 2nd year in **RU**

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# Frequently Asked Questions

## Frequently Asked Questions

1. *Can I apply if I don't have a bsc degree in Computer Science?*

ANSWER:

- EMAI accepts students with a strong background in computer science, software engineering, applied mathematics, and with a good level of English
- The main recommended entry profiles are students with a degree in Computer Science, Engineering or a related discipline, such as Computer Engineering, Electrical Engineering, Telecommunications, Physics or equivalent
- If you have degree in a related discipline that is not in the list, please write an email to [emai.eu@upf.edu](mailto:emai.eu@upf.edu)

## Frequently Asked Questions

2. *Where can I submit my application?*

ANSWER:

- Applications are managed through the UPF portal, which is the same for students applying to other UPF masters. It is also the same portal for scholarship, fee waiver, and self-funded students.  
The application is **free**.
- Follow the application Instructions and include all mandatory documents:  
[https://www.upf.edu/web/masters/1\\_requisits](https://www.upf.edu/web/masters/1_requisits)



## Frequently Asked Questions

3. *Do I have to pay a fee for applying to the master?*

ANSWER:

- NO, you will not be charged for registering and submitting your application. If you are accepted to the programme, the Fee waiver will cover all costs of enrollment, insurance, title expenditure, etc.

## Frequently Asked Questions

4. *I couldn't find the name of my university on the list of universities of my country*

ANSWER:

- Please send an email to <[admissions.master@upf.edu](mailto:admissions.master@upf.edu)> asking for your university to be incorporated in the database.

## Frequently Asked Questions

5. *I studied on an English speaking academic programme, am I eligible without an English Test Certificate? Will it suffice to provide a letter from institution stating that English is our medium of instruction?*

ANSWER:

- If you do not have a Certificate of English, and you studied in a Country where English is **not** the official language, you need to provide a document (certificate or letter) from your university stating that the instruction/examination language of the **entire** study was English.

You also need to take the *English Level Test* through the UPF School of Languages, and include the result in your application.

<https://www.upf.edu/web/idiomesupf/prova-angles-master>

## Frequently Asked Questions

6. *My bachelor's degree was taught in the English Language at XXX University YYY (ZZZZ). Please let me know if the English proficiency certificate from my university is valid or not.*

ANSWER:

- If you do not have a Certificate of English, and you studied in a Country where English is **not** the official language, you need to provide a document (certificate or letter) from your university stating that the instruction/examination language of the **entire** study was English.

You also need to take the *English Level Test* through the UPF School of Languages, and include the result in your application.

<https://www.upf.edu/web/idiomesupf/prova-angles-master>

## Frequently Asked Questions

7. *There are no available dates to book an English Level Test through the UPF School of Languages before 1st March. All of the spots in February were filled, unfortunately.*

### ANSWER:

- If there is no possibility of taking the UPF - English, you can take the online English level test through the UPF School of Languages and include the result in your application.

<https://www.upf.edu/web/idiomesupf/proves-de-nivell>

You still need to provide a document (certificate or letter) from your university stating that the instruction/examination language of the entire study was English.

## Frequently Asked Questions

8. *I am a native English speaker who was born, grew up, and studied in the United States. Is there a way for me to avoid taking a certificate test for this application to demonstrate my English proficiency?*

### ANSWER:

- In case you studied in a Country where English is the official language and studied on an English speaking academic programme, you do not need to provide any certificate



## Frequently Asked Questions

9. *Is the scholarship able to cover accommodation for cases where regular assistance is needed? Do you provide help for people with disabilities?*

### ANSWER:

- We did not ask for Contributions for special needs at the moment of our application to the EMJM and it is not possible at this point to reallocate funds. Therefore, we will not be able to provide additional support in this case.

## Frequently Asked Questions

*10. For "research experience", the document you want is to upload a paper you have done, right?*

ANSWER:

- It is not necessary that you attach a research paper in your application. You should add the bibliographic reference and a source link that we can use to download it.

## Frequently Asked Questions

*11. What kind of document are you expecting to be uploaded in the "Professional experience related to the master program"*

ANSWER:

- Any official document that proves professional activities besides the curricular activities.

For example, if you spent time in a company or research institution doing an internship, you have to attach a document to provide evidence of that.

## Frequently Asked Questions

*12. Having already done another master, i.e., course masters affect my application? If no can the transcript be added as document to the "additional academic training related to the master"*

ANSWER:

- Sure, any training prior to application that is relevant to the EMAI programme should be added.

## Frequently Asked Questions

*13. Can I attach the recommendation letters in my application?*

ANSWER:

- NO. Recommendation letters are treated confidentially and must be submitted by the referees via an URL that the platform sends to the referee. Please provide only the contact email of the referees in your application.

## Frequently Asked Questions

*14. What type of diploma will I get once I finish the studies and graduate?*

ANSWER:

- The EMAI expects a joint degree to be delivered by the four partner universities. Exceptionally, if any national joint accreditation is not obtained, a double or multiple degrees would be issued by the relevant partners. In this case, the degree will be issued by the rules and regulations of each partner university.



## Frequently Asked Questions

*15. My academic project supervisor at the University is retired and does not have an institutional email address. What is your advice if I want them to write a recommendation letter, as personal email is not allowed?*

### ANSWER:

- The only way to submit letters is via email. If your referee does not have an institutional email address, he/she can use the personal email address.

Be aware that we can contact the referees during the selection process.

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