

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



EMAI

Erasmus Mundus joint
Master in Artificial
Intelligence

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



Universitat
Pompeu Fabra
Barcelona



SAPIENZA
UNIVERSITÀ DI ROMA



Radboud
University
Nijmegen



University of Ljubljana

Distinguished Associated Partner:

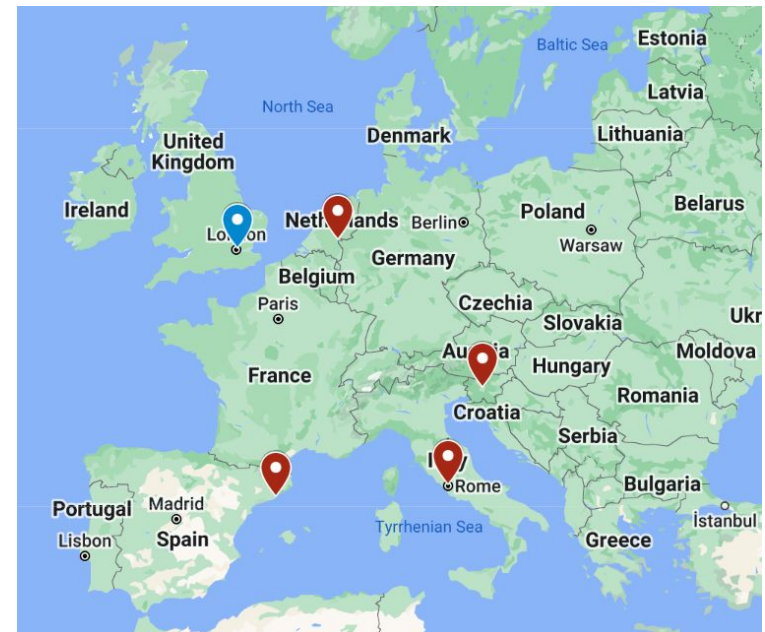
- UCL Centre for Artificial Intelligence
London, UK



UCL CENTRE FOR
ARTIFICIAL INTELLIGENCE



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



**Radboud
University
Nijmegen**



University of Ljubljana



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Admissions and 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



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- **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



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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





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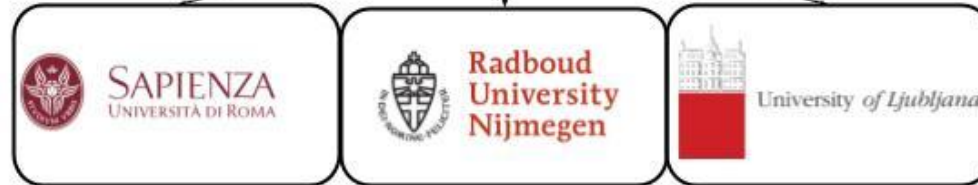
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Programme Structure

1st Semester



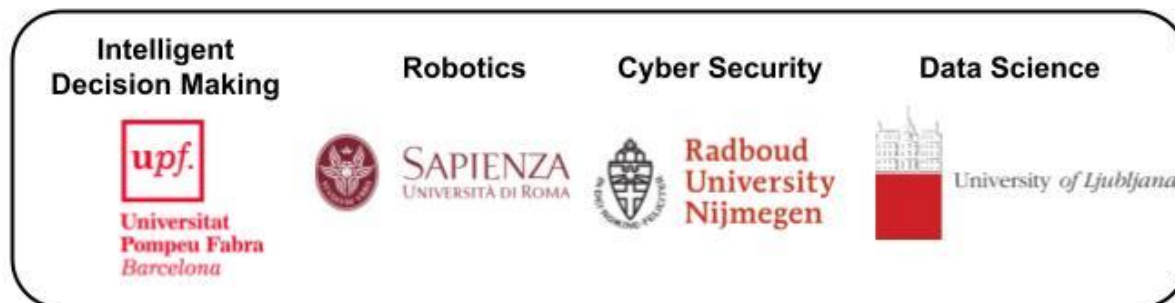
2nd Semester



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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