

# EMSSE

European Master in Sustainable  
Systems Engineering

## DRIVING EXCELLENCE IN SUSTAINABLE SYSTEMS ENGINEERING ACROSS EUROPE



Erasmus  
Mundus

### Erasmus Mundus Joint Master Degree and scholarships

# EMSSE - European Master in Sustainable Systems Engineering

## OBJECTIVES

The European Master in Sustainable Systems Engineering (EMSSE) is a dynamic 2-year integrated program, encompassing 120 ECTS credits. This innovative initiative unites four prestigious Higher Education Institutions (HEIs) spanning Europe, including France, Italy, Spain, and Albania, each contributing to an enriching educational experience in Systems Engineering (SE).

EMSSE places a special emphasis on Sustainable Systems Engineering, equipping students with the knowledge and skills to create systems that are efficient, cost-effective, and environmentally friendly. We prioritize considering the environmental, economic, and social impacts of a system throughout its entire lifecycle, from design and development to operation and maintenance.

The overarching objective of EMSSE is to design pioneering career paths and curricula for future SE professionals. Our program offers a specific student mobility agreement and three distinct paths, focusing on Systems Engineering (SoSE - Genoa), methodology in Prediction and Optimization Strategies for SE (AOS - Compiègne), and Manufacturing Systems (AMS - Barcelona). Graduates receive a joint degree signed by all partner HEIs, alongside a joint diploma supplement.

The uniqueness and the added value of this master program stands in:

- Integration of 3 European and 1 Western Balkans HEI with outstanding connections with industrial partners to propose a more complete and top-quality multidisciplinary academic knowledge in SE
- A compulsory semester (M1S2) for all EMSSE students will take place in UPT and teaching will be realized by all HEIs.
- Training of highly qualified personnel having interdisciplinary skills and expertise in SE with multiple external opportunities in different countries.
- High involvement of world leader industries representing a key factor for the training of new professional and opening to an international agenda.

## OUR CONSORTIUM

EMSSE brings together a consortium of four full partners and several associate industrial members including IncoSE Italia et several world leader industries in SE. Our esteemed HEIs include:

- University of Technology of Compiègne (UTC, EMSSE Coordinator), Compiègne, France
- University of Genoa (UniGe), Genoa, Italy
- Universitat Politècnica de Catalunya (UPC), Barcelona, Spain
- Polytechnic University of Tirana (UPT), Tirana, Albania

Compiègne • Genoa • Barcelona • Tirana • ... and beyond

With the support of the  
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Universiteti Politeknik  
i Tiranës



# Unlocking Sustainable Systems Engineering Excellence Across Europe

## STRUCTURE, CONTENT AND MOBILITY

The choice of the Majors and Minors determines part of the students' mobility.

	Training path	M1S1	M1S2	M2S1	M2S2	HEIs delivering degree diplomas
1	SoSE (Systems of Systems Engineering)	UniGe UTC UPC UPT	UPT	UniGe	Final Master projects in collaboration with Industries joining the EMSSE programme. Co-tutors by UniGe and UTC	Common joint degree
2	AOS (Machine learning and Optimisation of Systems)	UniGe UTC UPC UPT	UPT	UTC	Final Master projects in collaboration with Industries joining the EMSSE programme. Co-tutors by UTC and UPC	Common joint degree
3	AMS (Advanced Manufacturing Systems)	UniGe UTC UPC UPT	UPT	UPC	Final Master projects in collaboration with Industries joining the EMSSE programme. Co-tutors by UPC and UniGe	Common joint degree

## ADMISSION REQUIREMENTS

- **A Bachelor or equivalent degree (180 ects) in an engineering field with a strong technical background (science, engineering, mathematics, economy, etc.).** Candidates still completing their Bachelor's degree should graduate by July 31 of the academic year of application.
- **A good level in English**, in particular minimum test scores with TOEFL (Computer-based: 237; Paper version: 580; Internet version: 92 or above), IELTS (6.5); Cambridge Proficiency Examination (C), Cambridge Advanced English Test (B), CERF (B2). **Knowledge of French, Italian or Spanish is not mandatory, but is taken into account.**
- **A clear motivation** autonomy, open mind.

## PARTICIPATION COSTS

For students who are Erasmus Mundus scholarship holders, the participation costs are covered by the scholarship. For the other students, the tuition fees are the same for each training path and will be subject to scholarship and waiver policy decided by the consortium. More details on the applied rules are given in the website of the program. These rules are based on the consortium's social policy.

## SCHOLARSHIPS

- **scholarships of € 1400/ month (monthly allowance) are awarded for two years. more details on eligibility and conditions on the website.**

## HOW TO APPLY

The candidates should send their application via the platform emundus. More information is available in the website.

## WHEN TO APPLY

The deadline for candidates applying for an Erasmus Mundus scholarship is usually around January 30. Please refer to the website for more information.

**the course will start at the very beginning of september.**

MORE DETAILS ON THE WEBSITE  
[www.emsse.eu](http://www.emsse.eu)

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