

ADMISSION CRITERIA

E-PiCo is open to students from all over the world who already hold a first university degree with the equivalent of 180 ECTS, after at least three years studies at the **level of Bachelor of Science** in a field related to **electrical engineering**, such as: Electrical engineering, Auto-control, Computer Science, Physics or Mathematics.

Applicants must be **fluent in English**, both written and spoken. An applicant whose native language is not English is required to pass a recognised international (TOEFL, IELTS, TOEIC). Admission is decided on the basis of excellence of the academic records of the student, the quality of her/his former studies, motivation, reference letters and general language skills.

LANGUAGE

The Language of Instruction and evaluation is **English**. Local language and culture courses will be given as part of the Master's programme.

TUITION FEES

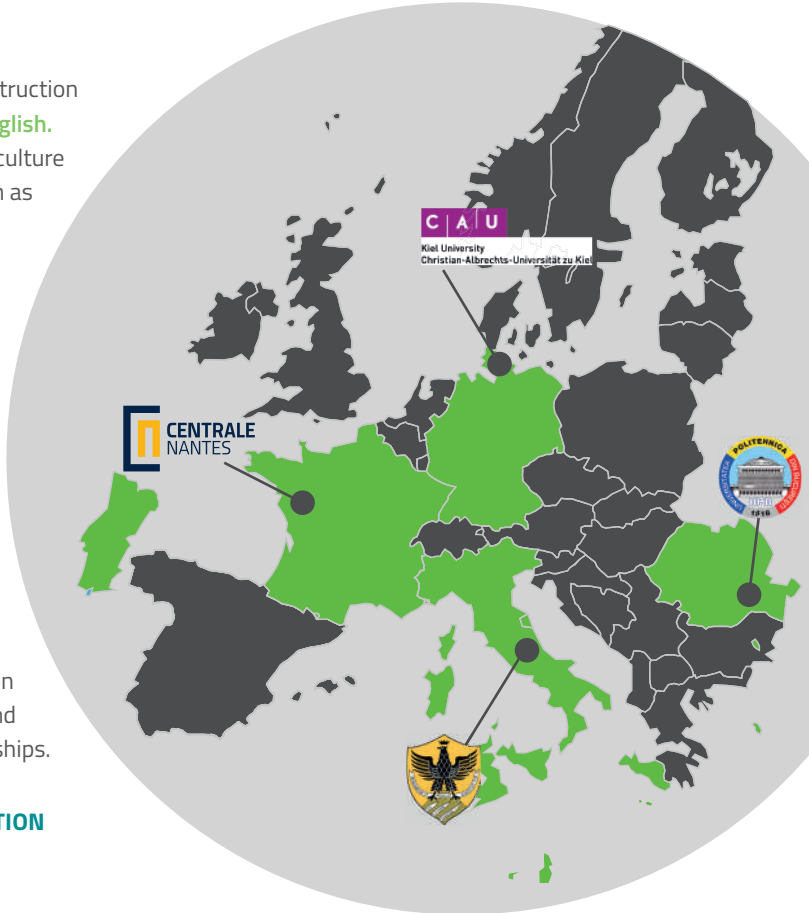
European Union students:
€4,500 per year
Non-European Union students:
€9,000 per year

SCHOLARSHIPS

Consult the E-PiCo website for details on Erasmus Mundus and Consortium scholarships.

INTAKE & APPLICATION DEADLINES

One intake per year:
beginning of September
Apply before end of January for Scholarships and before May for self-funded students



More information:

<https://master-epico.ec-nantes.fr/>
epico@ec-nantes.fr
Facebook: @masterepico

Erasmus Mundus Joint Master Degree

With the support of the
Erasmus+ Programme
of the European Union



EPiCo

Electric Vehicle Propulsion and Control

master-epico.ec-nantes.fr





What is an Erasmus Mundus Joint Master Degree (EMJMD)?

An EMJMD is a prestigious, integrated, international study programme, jointly delivered by an international consortium of higher education institutions and other partners with specific expertise and interest in the study programme.

What does EMJMD bring to your career plans ?

- **International vision:** mandatory mobility, language courses, courses fully taught in English
- **Visibility:** benefit from the attractiveness of the label of excellence on the job market
- **Network:** strong alumni network, partnership with industrials and labs

E-PiCo is a 2-year Master programme that offers useful and necessary multidisciplinary topics in the **e-mobility field**. E-PiCo will provide technical and scientific solutions to the **issue of fossil consumption and greenhouse gas emission**. It is devised to train students in the fields of e-mobility in order to have them work **towards ecological transition**.

Through lectures by **reputable researchers**, practical work on the **latest experimental platforms**, sessions with industrial specialists, E-PiCo students acquire the **most advanced knowledge** that will prepare them for the upcoming challenges in e-mobility.

Consortium

E-PiCo is an integrated Master's course designed and conducted by the best partner institutions sharing a **common vision of e-mobility**:

- > École Centrale de Nantes, France
- > Christian-Albrechts-Universität zu Kiel, Germany
- > Università degli Studi dell'Aquila, Italy
- > Universitatea Politehnica din Bucuresti, Romania

Master Thesis (4th semester) can be done in one of the associated partners institutions: Ecole de Technologie Supérieure (Canada), Wuhan University (China), Centro de Investigación y de Estudios Avanzados del Instituto (Mexico) **or in one of the 11 industrial partners that bring extra perspectives to the programme:** Airbus, DigiPower, ECA Group, Honda, IAV GmbH, Jungheinrich, Mercedes-Benz (Daimler) Modis, Pure Power Control (P2C), Renault Group, Tekne

Mobility path and programme

The programme of study lasts for **two academic years** split into four semesters. **E-PiCo** student mobility paths will take place in **minimum 2 EU countries, and possibly in 3 EU countries**.

Mobility scheme

		YEAR 1		YEAR 2		
		S1	S2	S3	S4	
Centrale Nantes	Winter school		UPB Bucharest	UPB Bucharest	Industrial Partners	Graduation
			UAQ L'Aquila	UAQ L'Aquila	European Academic Partners	
			CAU Kiel	CAU Kiel	Non-European Academic Partners	
			CAU Kiel	Centrale Nantes		

First semester is dedicated to provide students strong **solid background** in Control systems, Statistical signal processing and estimation theory, Fundamental Electric Vehicle Systems, Electric Vehicle Modelling and Simulation and Embedded Software systems.

Second semester will offer courses in Electric machines, Renewable energy and storage systems and Design of power electronics converters.

Third semester is a specialisation depending on the specific research strengths of the partners.

Fourth semester is dedicated to the **Master's Thesis** supervised by two advisers from two different institutions. The research topic can be supervised and located in R&D department of an industrial institution.

E-PiCo at a glance

- ⚡ 2 academic years
- ⚡ Fully taught in English
- ⚡ Degrees from each institution of studies will be awarded (2 or 3 depending on the mobility path)
- ⚡ European mobility: First semester in France, Second semester in Romania, Italy or Germany, third semester in any of the four institutions.

