



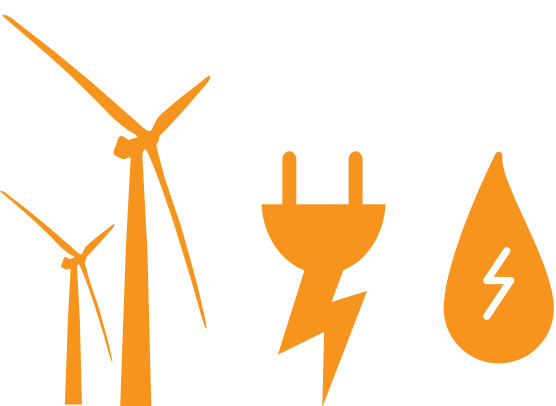
June 7th to July 13th

2022

Summer Program

In the beautiful backdrop of the Golfe du Morbihan

ENGINEERING TECHNOLOGIES FOR ENERGY TRANSITION




icam

Member of the Jesuit Institutions in Higher Education

• WHY CHOOSE THIS PROGRAM?

PROGRAM CONTENT

Located on Icam's Vannes campus in the amazing setting of the Morbihan Gulf, this course combines theoretical concepts and technical skills with a focus on energy transition and sustainability. Students complete the program with the design and creation of a complex technological solution.

Contents:

- Applied engineering approach with a multidisciplinary advantage: Materials science - Thermal Transfer - IoT (40 hrs of contact teaching)
- Technical engineering group project in our Fablab (maker lab) (40 hours of lab and team work)
- French Language and Culture (40 hrs of contact teaching)



This summer program will challenge you to develop your awareness of and reflect on crucial issues for future scientists and engineers.

Putting theory to practice is a defining feature of Icam's teaching approach. Designed to explore the challenges of today's complex issues such as climate change, energy transition, and sustainability, you will have the opportunity to apply technical skills and imagine creative solutions. You will develop your knowledge and understanding in materials science, thermal dynamics and IoT, as well as project management and team working skills.

You will also be invited to take a step back and reflect on our current way of living, the trends in industrial production, consumption and the care we bring to our common home, our planet, with its limited resources.

HIGHLIGHTS

- Icam's holistic focus on both hard and soft skills, leading to an optimal learning environment
- Problem-Based Learning to acquire knowledge and apply new skills in core areas of engineering
- Project management and intercultural communication skills. In a global warming context, identify the materials and heat transfer parameters, using an IoT system
- Cultural awareness and language skills through lessons and new friendships with French students, as well as participants from other countries
- Visits to prominent local companies and renewable energy plants that are actively changing the face of engineering
- Opportunities to meet French Icam students; weekend outings or dinners hosted by French families
- The Gulf of Morbihan provides an ideal backdrop to try out various water sports like kayaking, paddle boarding, sailing, and more during your free time
- Free weekends to explore the region and France with your friends at your own pace

• PROGRAM STRUCTURE



	HOURS	MODULES DESCRIPTION	ECTS CREDITS
MULTIDISCIPLINARY ENGINEERING TAUGHT MODULES	40H	<ul style="list-style-type: none"> • HEAT TRANSFER • MATERIALS • COMPUTER SCIENCE & DIGITAL ELECTRONICS • MANUFACTURING SCIENCE 	2
PROJECT & FABLAB	40H	<ul style="list-style-type: none"> • ICEBOX CHALLENGE 	2
FRENCH LANGUAGE & CULTURE	40H	<ul style="list-style-type: none"> • FOR BEGINNERS & INTERMEDIATES 	2

IN ADDITION : Visits of Vannes & Intercultural Parties, Dinners/weekend hosted by French families. Company Visits, museums, outdoor activities.

FOCUS ON THE ICE BOX CHALLENGE

• The engineering project (40H)

You will experiment design and implement a connected electronic heat transfer prediction system based on material properties, such as thermal insulation.

Through this work you will develop skills in Heat transfer, Materials science, IoT (digital electronics, computer science).

You will also demonstrate your teamworking skills, creativity and technical understanding through innovative pedagogies.



**FREE TIME TO EXPLORE
THE AREA***



REGIONAL DESTINATIONS

NANTES & RENNES IN 1 HOUR



MONT SAINT MICHEL



PARIS IS IN 2.5 HOURS



ACCOMODATION



Student residence hall. Individual rooms, with shared kitchen and living spaces.

**Not contractual. Photos from 2019.*

• PRACTICAL INFORMATION



ADMISSION CRITERIA

Open to university students from around the world in engineering or other STEM* major, having completed at least 2 years.

**Science, Technology, Engineering, Math*

→ Personal motivation

- Curious about the current issues linked to energy transition and sustainability
- Eager to discover French culture and language
- Motivated to work on a multidisciplinary engineering project in an international context

→ Requirement

Language : The engineering course and project are carried out in English. Basic knowledge of French will be useful, but not a must. [A personal laptop \(Mac or PC\) is required.](#)



PARTICIPATION FEE

→ **2,600 €: Students from partner universities (and member universities of IAJES)**

→ **3,200 €: Students from non-partner universities.**

Included: Administration fees, housing, company visits and scheduled excursions, course materials, lunches on field trip days, final farewell dinner, and 3rd party liability insurance during your stay.

The fees do not include: airfare, most meals throughout the stay, personal expenses (activities during free times and on weekends), passport/visa fees, home university fees & costs, mandatory health and repatriation insurance.

To estimate your monthly living costs in France, please refer to our [sample budget.](#)

• HOW TO APPLY ?

Application : Through your host university if exchange agreement with Icam. Otherwise, you will send your application form directly to Hervé Lorentz (contact details below).

Applicants should fill in :

- the [application form](#) including a brief personal statement.
- a resume/CV in English
- copy of most recent transcripts

• CONTACT

HERVÉ LORENTZ

Summer Program Assistant

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Email : herve.lorentz@icam.fr

Application deadline: February 28th, 2022
Letter of acceptance date: March 11th, 2022
Payment due: May 1st, 2022



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