ESIGELEC
SCHOOL OF ENGINEERING
SMART AND CONNECTED SYSTEMS
ROUEN | POITIERS

BIENVENUE EN FRANCE

Erasmus+,
Avec le soutien l'UE

ENGINEER YOUR FUTURE IN FRANCE

THE EXCHANGE PROGRAM

BE THE (EX)CHANGE

en.esigelec.fr

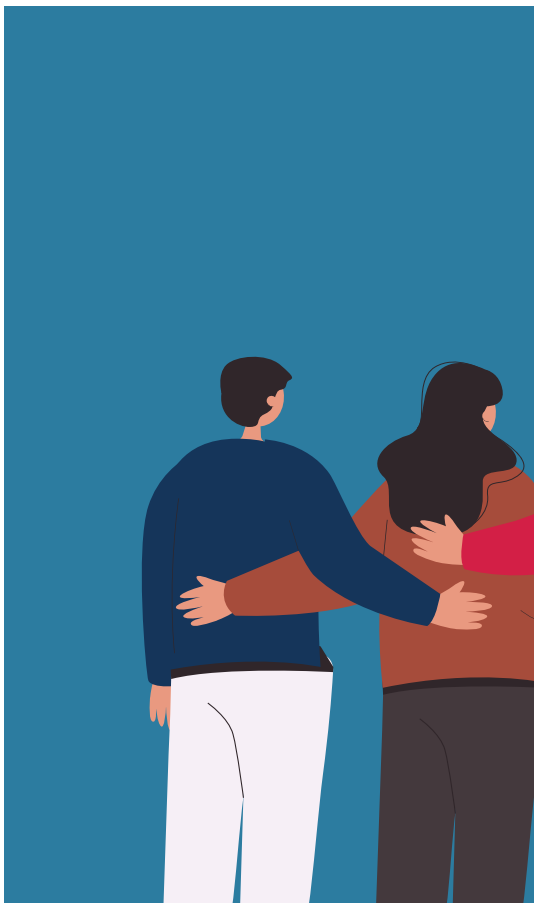
DISCOVER
FRANCE.
REDISCOVER
YOU.

For a curious graduate student with big dreams and goals, today's hyperconnected world presents a plethora of life-changing opportunities.

Our Exchange program is meant for lovers of life and learning, who wish to take their academic journeys to new heights. Spend a semester or a year in France, while you are still a student at your home university, to experience pure adventure, shared with other students.

An exchange of knowledge, perspectives, cultures, languages and so much more.

A MYRIAD OF REASONS TO GO ON AN EXCHANGE PROGRAM.



YOU WILL BECOME (EVEN) MORE GLOBALLY AWARE

Every country has its own way of doing things, as does every microcosm of its society - be it university life or workplace culture. Knowing these nuances will be a distinct advantage when you step into the real world. The exchange program will help you when you find yourself at the proverbial crossroads, as you chart your career path.

Step out!

YOU WILL REALIZE HOW ADAPTIVE YOU ARE

An exchange experience will make you flexible from within. Making new friends, learning new skills and navigating a new academic environment will prepare you for fresh challenges: the unknown will not come in the way of your progress!

Try out!

EMBRACE THE (EX)CHANGE.

YOU WILL BUILD A GLOBAL NETWORK

For a young student, meeting other international students and developing social networks can play a vital role in your future careers. A diverse circle of friends means more exposure to new, global opportunities. And you know, memories of a lifetime are made over weekend getaways, spontaneous night-outs and picnics in the park!

Reach out!

YOU WILL BECOME MORE EMPLOYABLE

Employers value problem-solvers, risk-takers and go-getters. Virtues like adaptability, cultural awareness and tolerance that you gain while on the exchange program go a long way when you seek job opportunities.

Stand out!

AND THEN SOME...!

- Tuition for the exchange program is waived. You pay only for your living expenses.
- You will be exposed to ESIGELEC's academic environment, student networks and the French work culture. An asset, should you choose to return for your studies, to ESIGELEC.
- You experience France in all its glory. Rouen, where ESIGELEC is located, welcomes students from many international communities and has much to offer historically and culturally.

HERE'S SOME GOOD NEWS!

Should you wish to return to ESIGELEC to pursue a Master of Technology degree in one of our English-taught tracks*, after successfully complete the Exchange program, you will not be required to repeat the courses for which you have already earned the ECTS credits, and you become automatically eligible for some attractive scholarships!

If you have earned the credits of Block 1 during the Exchange program and if you come back in February, for a program duration of 18 months	Total tuition: € 13,500 The Exchange Award: € The Young Achiever* for all applicants with a minimum CGPA of 9 (or equivalent): € 4,000 ***Applicants who are eligible for The Young Achiever scholarship will not receive The Exchange Award.**
If you have earned the credits of Block 2 during the Exchange program and if you come back in February, for a program duration of 12 months	Total tuition: € 10,050 The Exchange Award: € 2,000 The Young Achiever* for all applicants with a minimum CGPA of 9 (or equivalent): € 3,000 ***Applicants who are eligible for The Young Achiever scholarship will not receive The Exchange Award.**

*Software Engineering & Digital Transformation
Electronic Embedded Systems

This information is not applicable for exchange students who earn credits for courses in Block 3.

PROGRAM STRUCTURE

Offerings & Duration:

Academic Exchange of one or two semesters.

Language of instruction:

Fully English taught ***OR*** Mainly French taught, depending on the track.

Eligibility:

You must be enrolled at a higher education institution (HEI) that has an agreement of cooperation with ESIGELEC for student exchanges (Erasmus+ / inter-institutional bilateral agreement).

English Language Requirements:

(if you are applying for a program taught in English)

If the language of instruction of the last three years of study is English, you must demonstrate proficiency in English, regardless of nationality, by submitting one of the following tests with the required minimum ***OR*** an attestation from your university, stating that you will be able to follow courses in English.

Accepted test scores:

IELTS min.	: 6.5
TOEFL min.	: 8
PTE min.	: 55
Duolingo min.	: 100
Canadian Language Benchmark min.	: 7
CEFR min.	: B1

French Language Requirements:

(if you are applying for a program taught in French)

If the language of instruction of the last three years of study is French, you must demonstrate proficiency in French, regardless of nationality, by submitting one of the following tests with the required minimum ***OR*** an attestation from your university, stating that you will be able to follow courses in French.

Accepted test scores:

DELF	: B1
TCF	: B1
TEF	: B1

English taught Exchange Programs

Courses & ECTS Credits

SOFTWARE ENGINEERING & DIGITAL TRANSFORMATION (SEDT)

Choose between 20 (min.) and 30 ECTS credits (max.)

SEMESTER 1

SEMESTER 1	MODULE	No. OF HOURS	ECTS CREDITS
COMPUTER SCIENCE 1	▪ Introduction to Object Oriented Programming with Java ▪ Fundamentals of Data Communication and Networking ▪ Fundamentals of Web-Centric Development	40 24 30	8
DIGITAL ELECTRONICS	▪ Binary Logic & Digital Functions ▪ LabView ▪ C Programming	30 30 30	9
COMMUNICATION & LANGUAGE	▪ Cross Cultural Awareness and Working in a Team ▪ French as a Foreign Language OR English as a Foreign Language	36 60	6
SPECIALIZED COURSES FOR SEDT	▪ Java Project ▪ Database Management Systems	50 24	7
	TOTAL	354	30

SEMESTER 2

SEMESTER 2	MODULE	No. OF HOURS	ECTS CREDITS
COMPUTER SCIENCE 2	▪ Enterprise Network ▪ Object Oriented Programming with Java EE ▪ Development of Mobile Application ▪ Intro to .NET Framework (C#)	24 40 40 24	13
BUSINESS INTELLIGENCE	▪ Analysis & Design with UML ▪ Big Data: Challenges & Opportunities ▪ Artificial Intelligence: Principles & Techniques ▪ Python for Data Analysis	32 40 30 36	12
COMMUNICATION & LANGUAGE 2	▪ Oral Communication & Presentation Skills ▪ French as a Foreign Language OR English as a Foreign Language	14 60	5
	TOTAL	340	30

SEMESTER 3

SEMESTER 3	MODULE	No. OF HOURS	ECTS CREDITS
INFORMATION SYSTEMS	▪ Cloud Computing ▪ PL/SQL Programming for Databased ▪ Information System Security ▪ Web-centric Development & ASP.NEY	30 20 30 20	10
BUSINESS MANAGEMENT	▪ Management Control & Business ▪ Marketing in a Technical Environment ▪ Intellectual Property & Internet Protection Laws	32 22 12	7
PROJECT DEVELOPMENT & MANAGEMENT	▪ Project Management ▪ R&D Project	30 80	9
FOREIGN LANGUAGE	French as a Foreign Language OR English as a Foreign Language	60	4
	TOTAL	336	30

ELECTRONIC EMBEDDED SYSTEMS (EES)

Choose between 20 (min.) and 30 ECTS credits (max.)

SEMESTER 1

SEMESTER 1	MODULE	No. OF HOURS	ECTS CREDITS
COMPUTER SCIENCE 1	▪ Introduction to Object Oriented Programming with Java ▪ Fundamentals of Data Communication and Networking ▪ Fundamentals of Web-Centric Development	40 24 30	8
DIGITAL ELECTRONICS	▪ Binary Logic & Digital Functions ▪ LabView ▪ C Programming	30 30 30	9
COMMUNICATION & LANGUAGE	▪ Cross Cultural Awareness and Working in a Team ▪ French as a Foreign Language OR English as a Foreign Language	36 30	6
SPECIALIZED COURSES FOR EES	▪ Bibliographical Study ▪ Digital Electronics Project ▪ Fundamentals of Electronics	12 32 30	7
	TOTAL	354	30

SEMESTER 2

SEMESTER 2	MODULE	No. OF HOURS	ECTS CREDITS
DIGITAL SYSTEMS	▪ Microprocessors ▪ VHDL & Logic Synthesis ▪ Communication Buses	60 30 30	8
EMBEDDED OPERATING SYSTEMS	▪ Real Time Operating Systems ▪ Embedded Linux	30 30	6
EMBEDDED SOFTWARE	▪ Embedded C Programming ▪ Analysis & Design with UML ▪ Embedded JAVA	30 32 30	6
INSTRUMENTATION	▪ Smart Sensors ▪ Specific Instrumentation	30 30	6
COMMUNICATION & LANGUAGE 2	French as a Foreign Language OR English as a Foreign Language	60	4
	TOTAL	392	30

SEMESTER 3

SEMESTER 3	MODULE	No. OF HOURS	ECTS CREDITS
EMBEDDED COMMUNICATION	▪ IoT Architectures and Protocols ▪ Python Programming & Image Treatments ▪ Android Programming	30 30 30	10
EMBEDDED ELECTRONICS	▪ System on Chip ▪ DSP Processors ▪ Safety Systems	20 20 20	6
COMMUNICATION & LANGUAGE 3	▪ Oral Communication & Presentation Skills ▪ French as a Foreign Language OR English as a Froeign Language	14 60	5
PROJECT DEVELOPMENT & MANAGEMENT	▪ Project Management ▪ R&D Project	30 80	9
	TOTAL	334	30

AUTOMOTIVE EMBEDDED SYSTEMS (AES)

Choose between 20 (min.) and 30 ECTS credits (max.)

SEMESTER 2

SEMESTER 2	MODULE	No. OF HOURS	ECTS CREDITS
EMBEDDED SYSTEMS	▪ Communication Buses ▪ ADAS & Automotive Electronic Systems ▪ Safety Systems and Automotive Constraints	30 46 20	7
EMBEDDED SOFTWARE	▪ Embedded C Programming ▪ Elective 3*	30 30	6
PROJECT DEVELOPMENT & MANAGEMENT	▪ R&D Project ▪ Project Management	60 26	7
PERCEPTION & ENVIRONMENT UNDERSTANDING	▪ Artificial Intelligence for Automotive ▪ Computer Vision ▪ Robotics & Localization	20 20 30	5
COMMUNICATION & LANGUAGE	▪ Oral Communication ▪ MSTFRE French or MSTENG English	15 60	5
	TOTAL	391	30

* ELECTIVE 3 (Choose 1 module)

UE	MODULE
ELECTIVE 3	LabVIEW Programming
	VHDL Programming
	Embedded Linux
	EMC Automotive Systems

CONNECTED EMBEDDED INTELLIGENT SYSTEMS (CEI)

Choose between 20 (min.) and 30 ECTS credits (max.)

SEMESTER 2

MODULE	No. OF HOURS	ECTS CREDITS
Virtual Instrumentation	30	3
Specific Instrumentation	30	3
Embedded C Programming	30	3
Elective 2*	30	3
R&D Project	60	5
Project Management	26	2
Artificial Intelligence for Smart Systems	30	3
Smart Sensors	30	3
Oral Communication	15	1
French Language 2	60	4
TOTAL	345	30

* ELECTIVE 2 (Choose 1 module)

UE	MODULE
ELECTIVE 3	Reasl-time Operating Systems
	Embedded Java
	Mobile Robotics & Perception
	Embedded Linux
	EMC Automotive Systems

APPLICATION & ADMISSION

Step 01

Before you apply

- Get nominated by your home university*
  (contact the international relations office)

Step 02

Apply to ESIGELEC

- Collect supporting documents.
- Create an account on our online application portal, ESIGELEC ONESTOP*, at en.esigelec.fr.
- Get your ***Learning Agreement***** approved
- Complete and submit your application

Step 03

Getting accepted by ESIGELEC

- ESIGELEC reviews your application
- If your application is successful, you will receive an Invitation Letter and an Admission Letter
- Accept (or decline) the admission offer
- Start preparing for your departure!

For details on nominations, application and acceptance procedures, please visit our website **en.esigelec.fr**

***Our application process is paperless!**
***Keep a tab on the nomination and application deadlines!**

THE START OF SOMETHING NEW

FACE
FAC

01 EURACE Label

03 88 partners in 42 countries

05 Accredited by Commission des Titres d'Ingénieur

07 Master's program taught in English

09 Founded over 120 years ago

E THE
CTS

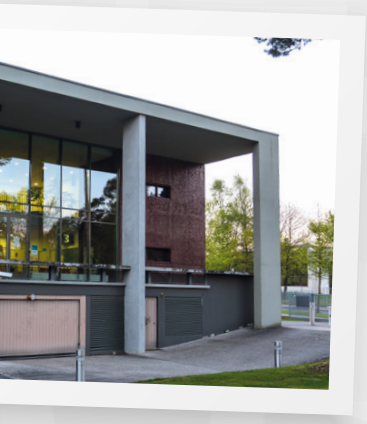
02 12 engineering tracks

04 *Bienvenue en France* certified

06 Our state-of-the-art laboratory, IRSEEM

08 Over 35% international students

10 Erasmus+ Charter



THEY EMBRACED THE EXCHANGE.

Gouri Ramesh

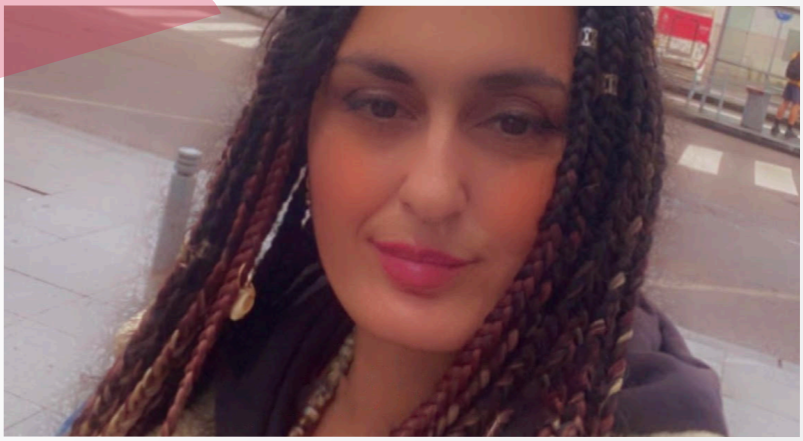
New Horizon College of Engineering, Bengaluru, India
Exchange student: February 2022 - July 2022

“Going to another country, and living and studying there was an experience that moulded me for the better. I learnt a lot on this trip - technically as well as personally. It was an amazing experience to be exposed to a new (and vibrant!) culture, and make new friends while learning to enjoy my own company. ESIGELEC and its warm community made me feel so welcome and at home right from day one. Interacting with and learning from my teachers and classmates was a lovely experience. Even after returning to India, I can’t get over the beautiful city of Rouen, the energetic University campus and my special evening walks along the banks of the Seine.”

Manisha Prem

New Horizon College of Engineering, Bengaluru, India
Exchange student: February 2022 - July 2022

"I've always dreamt of exploring the education system abroad and ESIGELEC's Exchange Program was a wonderful way to make that dream a reality. The campus gives you the feel of a university and the warmth of a home, all in one, which really helps international students to settle in quickly. The faculty at ESIGELEC were very comfortable to interact with and the students were friendly and welcoming, which made my short stay in Rouen a lot easier. On the whole, the exchange experience pushed me out of my comfort zone and made me more independent than I could have ever imagined!"



Heschu QARANI

Erasmus+ exchange (Software Engineering & Digital Transformation)
Friedrich-Alexander-Universität Erlangen-Nürnberg

The first day I set foot on French ground, was the day I experienced the greatest joy and relief. I arrived in Rouen two weeks before ESIGELEC asked us to - something I will never regret. I am curious by nature, and wanted to discover Rouen before the start of the academic season. So, I set out to explore the city centre and familiarise myself with the hot spots there.

The academic courses required that I put in a lot of effort but were worth every second of my time and hard work. I appreciate the encouragement from the educators and their love for their work. One is immediately taken by their efforts in providing an enriching environment for you with their immense knowledge and vast experience.

María Luján Rodríguez

Erasmus+ exchange student (Electronic Embedded Systems)
Universitat Politècnica de Valencia, Escuela Técnica Superior de Ingeniería del Diseño, à Valence

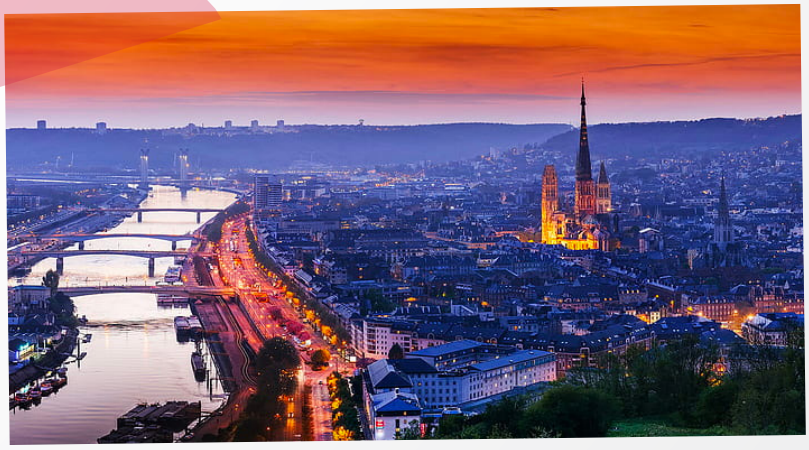
As a student going for an exchange program to another country, it is very important to be open-minded. You are going to a different place so don't expect things to be the same as they are back home. The main idea is to see the change as something you can learn from instead of complaining about it. Just enjoy the cultural differences! It will be enriching! I am personally having a great time at ESIGELEC. There are many student clubs and activities where you can have fun and learn with very nice people! In addition, Rouen is such a beautiful place!

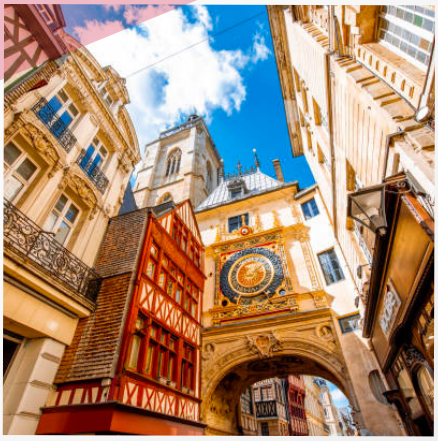
NOW IT'S YOUR TURN!

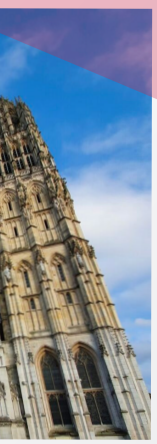
ROUEN, A HUNDRED BELLS TELL A TALE!

Normandy's cultural and historic capital, Rouen is defined by beautiful architecture, creative minds and a storied past. Spires of the city's Gothic cathedral dominate the skyline, and have been immortalised in many paintings by Impressionist Claude Monet. A lovingly restored medieval quarter, cobblestoned streets and colourful half-timbered houses make a simple walk around Rouen fascinating.

Set on the banks of the Seine, this city has attracted students for years due to its friendly atmosphere and conviviality. Rouen is just a two-hour drive from Paris, which means you can enjoy lower living costs whilst still frequently visiting the dreamy French capital.

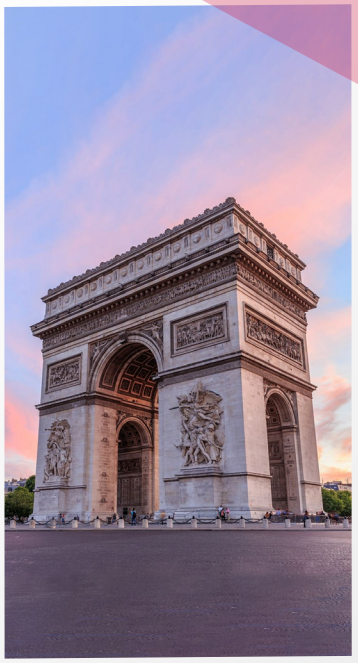






We won’t stop you from falling in love with Rouen.

A HEXAGON THAT WILL STIR YOUR SOUL. CHOOSE FRANCE



If engineering is your art, there's no better canvas than France to create your masterpiece. A world leader in the energy, technology and transport sectors, France welcomes young, innovative minds with arms wide open. As a student, it's hard not to be inspired by the country's innovative strides in the electronics and telecommunications industries. France is also at the cutting edge of aerospace development with a thriving information technology market and a strong record in producing advanced military equipment.

Technological prowess, did you say? Then France it is!

NORMANDY, SAY CHEESE!

Lifestyle meets opportunity in Normandy!

This region of France prides itself in all things dairy. Even if cheese is not your thing, there's much to discover here. Normandy is a vibrant centre of industry, housing some of France's biggest businesses and international corporations. With its picturesque coast and delectable cuisine, it has inspired many artists and enchanted many travellers. Normandy is known to have one of the youngest populations in France, and is revered for its medieval charm, stylish beach resorts and great quality of life.

EUROPE, ONE WEEKEND AT A TIME!

Above and beyond the marvels that are waiting to be explored in France, you are also in the heart of Europe with many countries and cultures at your doorstep. Step out, travel, explore and discover exciting places and opportunities across the continent. Revered for its social and scenic charm, Europe is international exposure at its best.

What's more – collaborations within Europe have shaped a thriving international academic community that is well-aligned, conducts cutting-edge research and creates long-term career opportunities for young graduates in the continent.

Unravel the beauty of THE continent!

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SMART AND CONNECTED SYSTEMS
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+33 2 32 91 58 58

Technôpole Du Madrillet, Avenue Galilée 76800
Saint-Etienne Du Rouvray, France

...LET THE ADVENTURE BEGIN.

Elodie DELAPORTE
International Relations Assistant
international@esigelec.fr

Dimitri PESTY
Outgoing mobility, Erasmus,
Exchange program, Digitilisation
dimitri.pesty@esigelec.fr
international@esigelec.fr

South Asia:
Vidya Suresh
southasiaoffice@esigelec.fr

Rest of the world:
international@esigelec.fr

Website : en.esigelec.fr

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