

**FERIT**

FACULTY OF ELECTRICAL ENGINEERING,  
COMPUTER SCIENCE AND INFORMATION  
TECHNOLOGY **OSIJEK**



## Dean's foreword



Josip Juraj Strossmayer University of Osijek, Faculty of Electrical Engineering, Computer Science and Information Technology Osijek (FERIT), is a leading higher education and research institution in the Eastern Croatia, educating engineers in the fields of Electrical Engineering and Computer Science. Its location in a region widely recognised for the rapid growth of the IT sector provides FERIT with strategic advantages for further development and enables a significant contribution to both the regional and national economy.

The rapid expansion of the IT industry has transformed Osijek from a traditional industrial centre into a modern hub of newly established companies operating worldwide, positioning the city as a key player on the international technology map. The development of new technologies presents significant challenges in educating professionals with specialised competencies in electrical engineering, computer science, and information technology, particularly in the context of the growing impact of artificial intelligence (AI). The emergence of new occupations demands continuous updates to study programmes to keep pace with industry trends. Consequently, collaboration with industry through joint scientific and professional projects is a central strategic goal of the Faculty, supporting the ongoing improvement and relevance of its academic programs.

By educating experts across a broad range of practical and scientific subfields in electrical engineering and computer science, including industrial automation, power engineering, electronics, information and communication technologies, robotics, artificial intelligence, computer and software engineering, big data, and autonomous driving, FERIT has played a key role in the industrial transformation of Osijek and its surrounding region. The institution's future development is focused on enhancing its international visibility and expanding its network of global partners.

FERIT's mission is to provide education grounded in knowledge gained through competitive research projects and industry collaboration, while also promoting economic growth through innovation and technology transfer. This approach ensures that FERIT remains an internationally recognised institution of higher education and research, continuously contributing to global technological advancement and societal development.

Dean

A handwritten signature in black ink, appearing to read 'Tom Matić'. The signature is fluid and cursive.

*Dr Tomislav Matić, Full Professor*



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JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK

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Computer Science and Information Technology Osijek**

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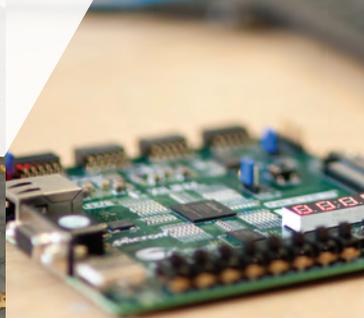
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<https://www.ferit.unios.hr>

# Faculty management



**Dr Tomislav Matić,**  
Full Professor  
Dean



**Dr Danijel Topić,**  
Full Professor  
Vice-Dean for Science  
and Postgraduate Studies



**Dr Emmanuel Karlo Nyarko,**  
Full Professor  
Vice-Dean for Projects and  
International Cooperation



**Dr Marinko Barukčić,**  
Full Professor  
Vice-dean for Business Affairs  
and Quality Assurance



**Dr Josip Job,**  
Full Professor  
Vice-Dean for Technology  
and Economic Cooperation



**Dr Ivan Vidović,**  
Associate Professor  
Vice-Dean for Education  
and Student Affairs

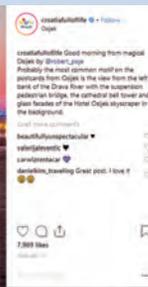


# Welcome to Croatia

The Republic of Croatia is geographically located between Central and Eastern Europe. It covers the geographical area that extends from the spacious Pannonian Plain across a narrow area of the Dinaric Alps to the Adriatic coast - one of the most indented coastlines in the world. The interior of the country has a moderate continental climate, whereas a pleasant Mediterranean climate prevails along the Adriatic coast.



<https://croatia.hr/en-gb>



# Slavonia and Baranja

Slavonia and Baranja is a historical region in eastern Croatia. It is surrounded by three rivers; the Sava River (the border with Bosnia and Herzegovina), the Drava River (the border with Hungary) and the Danube (the border with Serbia), forming an area of exceptional beauty with forests, meadows and hills. In Slavonia, there are numerous castles and villas that once belonged to rich families, but now they add a special charm to this part of Croatia. Baranja stretches between the Drava River in the north and the Danube in the east. At the point where the Danube and the Drava River meet, nature has created a remarkable phenomenon - Kopački Rit Nature Park, which is rich in flora and fauna. In 1967, Kopački Rit and its immediate area were declared a nature park and a zoological reserve, respectively.

The largest city in Slavonia, Osijek, which is located on the Drava River, is an interesting tourist destination with numerous parks, cultural monuments and entertainment possibilities.



# Osijek

Osijek is the fourth largest city with a population of about 95 000 inhabitants. It is located in a valley on the right bank of the Drava River. It consists of the Fortress – a baroque city-fortress built in the 18<sup>th</sup> century, the Upper, the Lower and the New Town, Retfala and the Industrial District. Osijek is the most verdant city in the Republic of Croatia.



<https://www.tzosijek.hr/>



The 18<sup>th</sup> century baroque city-fortress of Osijek was built by transforming the then historic city located at the strategic crossing over the Drava River. The first new city-fortress was built within a large strategic system of fortified baroque towns on the border with the Ottoman Empire, which was founded by Prince Eugene of Savoy who began to build it in 1712. The fortress had four gates: The New Gate (south), the Water Gate (north), the Imperial Gate (east) and Valpovo Gate (west). Out of these four gates to the fortress, only one is still present today – the Water Gate, where there is a memorial plaque dedicated to the builder of Osijek fortress, general Stephan von Beckers. It is believed that his body was walled up in the outer wall or rampart.



[www.osijek.hr](http://www.osijek.hr)



# Josip Juraj Strossmayer University of Osijek

Josip Juraj Strossmayer University was established in 1975. It comprises 24 constituent units: 14 faculties, 3 university departments, 1 Academy of Arts, and 4 university infrastructure institutions – the City and University Library in Osijek, the Student Centre in Osijek, the Student Dormitory in Đakovo, and the Student Centre in Požega – as well as the University Centre for Quality Assurance of Higher Education and Tera Tehnopolis Ltd. Today, Josip Juraj Strossmayer University of Osijek has approximately 2,000 employees and 14,000 students, with 1,800 students enrolled at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek.



<https://www.unios.hr/en/>





## FERIT OSIJEK

**The Faculty of Electrical Engineering, Computer Science and Information Technology Osijek is a higher education, scientific, and research institution that conducts scientific, research, development, and educational projects, and offers undergraduate, graduate, postgraduate, and professional study programmes in technical sciences.**

Higher education in electrical engineering was first established in Osijek in 1978 as the third programme of its kind in the Republic of Croatia. The creation of the Study of Electromechanical Engineering resulted from an initiative by the University of Osijek in 1977 and 1978. It was supported by the economy of the city of Osijek and the surrounding municipalities in the Slavonia and Baranja region.

Ostale primjene

- Privlačna karijera
- Najbolje plaće (na... per...)
- Povoljne uvjete...

- Povećanje i informativ...
- Osim...

In 1993, the Faculty of Electrical Engineering Osijek (ETFOS) was founded as a public institution of higher education. Today, it is organised into six departments with a total of sixteen chairs and two accredited laboratories.

The strong development of the Faculty of Electrical Engineering in Osijek, the pursuit of new scientific achievements, the improvement of teaching processes, and the expansion of cooperation with economic entities led to the idea of renaming the Faculty and strengthening the positioning and branding of a new entity. On 8 May 2016, the Faculty was renamed.

The Faculty of Electrical Engineering, Computer Science and Information Technology Osijek is a driving force in higher education, innovation, and the development of new technologies in the city, county, and wider regional area. With the name change, in addition to power engineering, the branches of information systems, telecommunications, and informatics within electrical engineering and computer science were further emphasised.

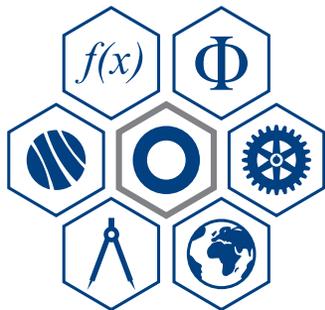
They are the common denominator of information technologies, whose purpose is the development, maintenance, and use of computer systems, software, and communication networks for data processing and distribution. To increase the visibility of the Faculty's field of activity in the academic and business environments, computer science and information technology are highlighted in the new name, along with electrical engineering.

Through its university and professional study programmes, the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek has been educating and training its staff to keep pace with technological advances in electrical and computer engineering, to apply their knowledge to engineering problem-solving, and, through direct cooperation with industry, to transfer knowledge of new technologies based on recent scientific findings. The study programmes align with European and global trends, while also being adapted to the needs of the local economy. FERIT Osijek is also a regional scientific and research centre of excellence in electrical and computer engineering.





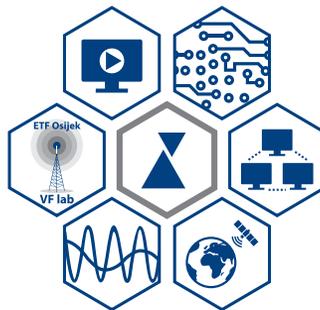
# DEPARTMENTS AT FERIT



## DEPARTMENT OF CORE COURSES

Chair of Mathematics,  
Physics and Mechanical Engineering

Chair of Humanities and Social  
Sciences



## DEPARTMENT OF COMMUNICATIONS

Chair of Electronics and Microelectronics

Chair of Radiocommunications  
and Telecommunications

Chair of Multimedia Systems  
and Digital Television

Laboratory for  
High Frequency Measurements



## DEPARTMENT OF SOFTWARE ENGINEERING

Chair of Programming Languages  
and Systems

Chair of Visual Computing

Chair of Theoretical Computer Science  
and Data Science

Chair of Applied Computing

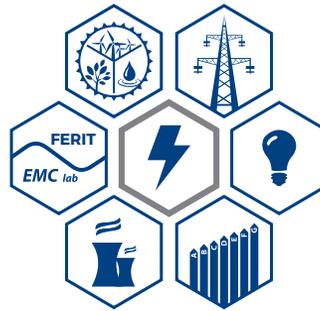


## DEPARTMENT OF COMPUTER ENGINEERING AND INTELLIGENT SYSTEMS

Chair of Artificial Intelligence and Robotics

Chair of Applied Computer Engineering

Chair of Computer Systems



## DEPARTMENT OF POWER ENGINEERING

Chair of Power Systems  
and Substations

Chair of Power Plants  
and Energy Processes

Electromagnetic  
Compatibility Laboratory



## DEPARTMENT OF ELECTROMECHANICAL ENGINEERING AND AUTOMATION

Chair of Electric Machines  
and Power Electronics

Chair of Fundamentals of Electrical  
Engineering and Measurements

Laboratory for Hybrid Electric Drives and  
Automation

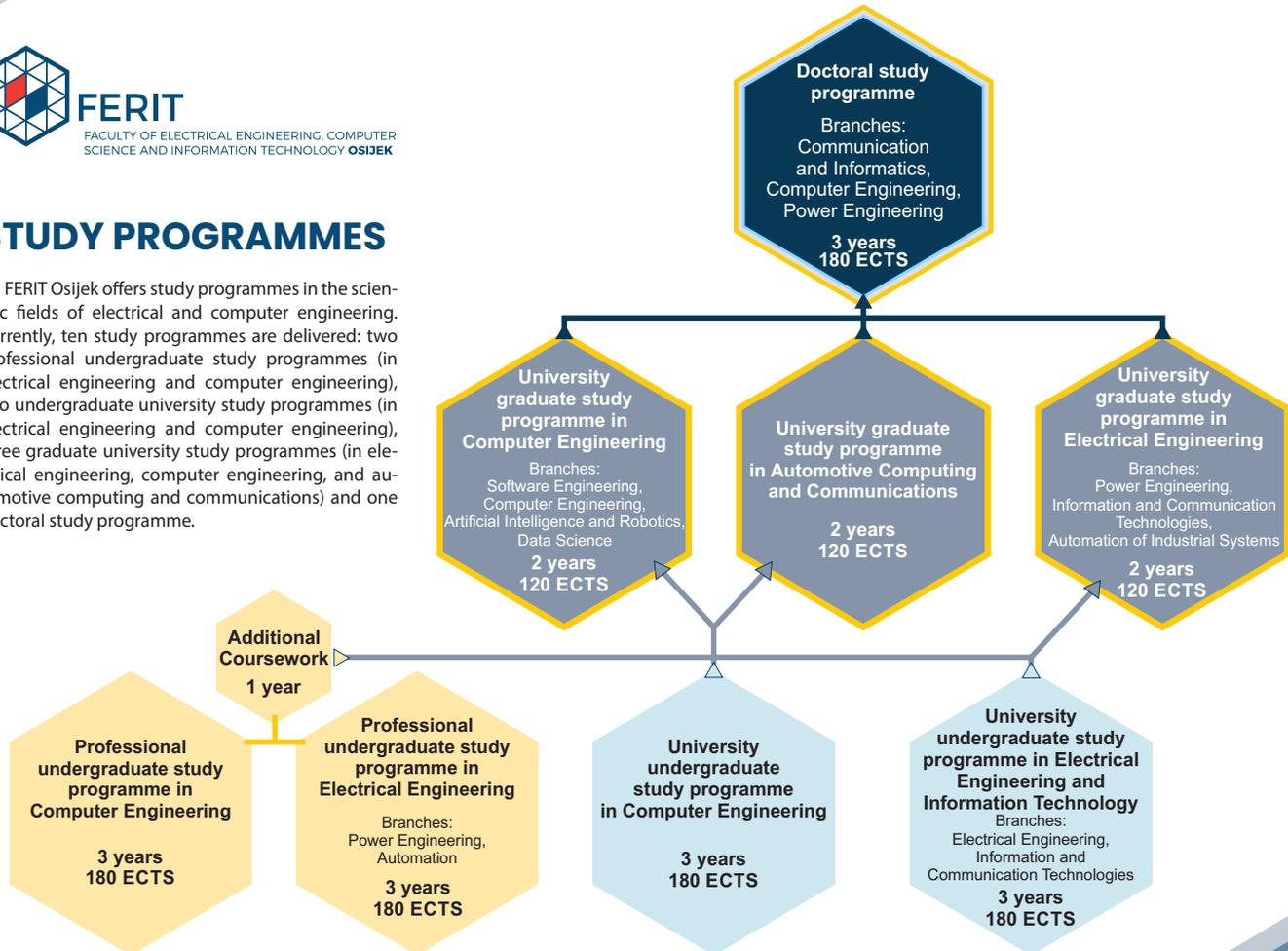


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## STUDY PROGRAMMES

FERIT Osijek offers study programmes in the scientific fields of electrical and computer engineering. Currently, ten study programmes are delivered: two professional undergraduate study programmes (in electrical engineering and computer engineering), two undergraduate university study programmes (in electrical engineering and computer engineering), three graduate university study programmes (in electrical engineering, computer engineering, and automotive computing and communications) and one doctoral study programme.





## University undergraduate study programme in Computer Engineering

3 years  
180 ECTS

Within the framework of the university undergraduate study programme in *Computer Engineering*, students are educated and trained to work in a highly dynamic area of technological development. They are taught to identify, formulate, and solve engineering problems using various computer tools and systems.





**University  
undergraduate study  
programme in Electrical  
Engineering and  
Information Technology**

Branches:  
Electrical Engineering,  
Information and  
Communication Technologies

**3 years  
180 ECTS**

Students in the university undergraduate study programme in *Electrical Engineering and Information Technology* acquire skills and competencies to apply their knowledge of mathematics, physics, science, and engineering to electrical engineering, as well as to design and conduct experiments, and analyse and interpret measurement results. Students learn to identify, formulate, and solve engineering problems.



A group of five male students are gathered around a table in a laboratory, focused on a project. They are surrounded by various electronic components, including a breadboard, a laptop, and several power supplies. The background shows large windows with blue blinds, suggesting a bright, modern educational environment.

## Professional undergraduate study programme in Electrical Engineering

Branches:  
Power Engineering,  
Automation

**3 years**  
**180 ECTS**

Students in the professional undergraduate study programme, branch **Power Engineering** acquire knowledge and skills to design, test and maintain electrical installations at all levels of complexity, as well as transmission and distribution networks and lines, switching substations, city substations, distribution overhead and underground networks, facilities and plants of flexible production systems, automated electromotive plants, and more.

Students in the professional undergraduate study programme, branch **Automation** acquire knowledge and skills to design, implement, test and maintain automated technological, power and transport plants and processes, among others.

A photograph of a computer lab with several students sitting at desks, working on computers. The room has a high ceiling with skylights and a whiteboard in the background. The students are focused on their screens, which display various software interfaces and data. The desks are arranged in rows, and the overall atmosphere is one of a busy, modern educational environment.

## Professional undergraduate study programme in Computer Engineering

**3 years  
180 ECTS**

Upon completion of the professional undergraduate study programme in *Computer Engineering*, students acquire the knowledge and skills to apply mathematics, physics, computing, and engineering to computer engineering and related fields. This theoretical foundation enables students to understand and adopt new techniques and technological changes, providing a firm foundation for lifelong learning. As they learn about various standards and regulations, students are trained to design and maintain computer and programming systems as well as to write relevant documentation.



## University graduate study programme in Computer Engineering

Branches:  
Software Engineering,  
Computer Engineering,  
Artificial Intelligence and Robotics,  
Data Science

**2 years**  
**120 ECTS**

The university graduate study programme in Computer Engineering at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek enables students to become qualified in various aspects of process computing and related scientific fields. Upon graduation, students will be able to:

- plan, design, and develop hardware and software solutions for computing systems in the economy, industry, business, and other applications in companies;

- develop hardware and software solutions;
- participate in interdisciplinary efforts, either independently or as a team member, in creative or systematic resolution of complex engineering problems in computing or programming;
- conduct laboratory research;
- plan and optimise modern hardware and software solutions.

**Additionally, students will acquire further competencies depending on the chosen branch (Software Engineering, Computer Engineering, Robotics and Artificial Intelligence, Data Science).**

The university graduate study programme in Electrical Engineering enables students to acquire advanced knowledge and skills in modern electrical engineering and related fields.

Upon completion of this study programme, graduates will be able to:

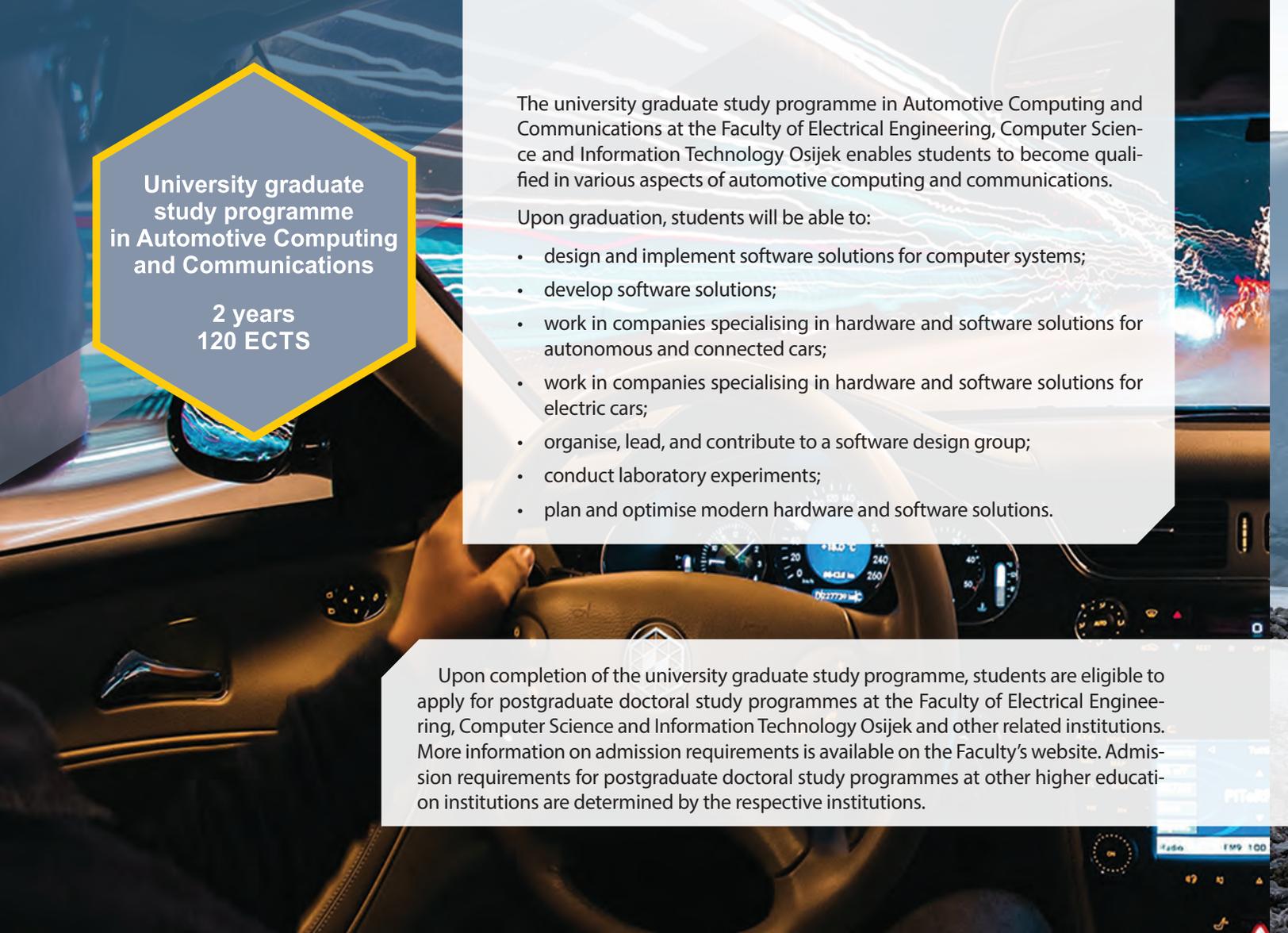
- evaluate factors influencing the maximisation of positive business outcomes for a company;
- develop a project plan using appropriate tools and techniques for project planning and management;
- identify engineering tasks, necessary knowledge, and skills related to production technology, prescribed occupational safety measures and procedures, as well as regulations and standards.

**Additionally, students will acquire further competencies depending on the chosen branch (Power Engineering, Information and Communication Technologies, Automation of Industrial Systems).**

## University graduate study programme in Electrical Engineering

Branches:  
Power Engineering,  
Information and Communication  
Technologies,  
Automation of Industrial Systems

**2 years**  
**120 ECTS**



University graduate  
study programme  
in Automotive Computing  
and Communications

2 years  
120 ECTS

The university graduate study programme in Automotive Computing and Communications at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek enables students to become qualified in various aspects of automotive computing and communications.

Upon graduation, students will be able to:

- design and implement software solutions for computer systems;
- develop software solutions;
- work in companies specialising in hardware and software solutions for autonomous and connected cars;
- work in companies specialising in hardware and software solutions for electric cars;
- organise, lead, and contribute to a software design group;
- conduct laboratory experiments;
- plan and optimise modern hardware and software solutions.

Upon completion of the university graduate study programme, students are eligible to apply for postgraduate doctoral study programmes at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek and other related institutions. More information on admission requirements is available on the Faculty's website. Admission requirements for postgraduate doctoral study programmes at other higher education institutions are determined by the respective institutions.



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FACULTY OF ELECTRICAL ENGINEERING,  
COMPUTER SCIENCE AND INFORMATION  
TECHNOLOGY OSIJEK

Master study programme  
Automotive Computing  
and Communications **Auto  
Com<sup>2</sup>**

**INVEST IN YOUR FUTURE,  
STUDY AT FERIT**



© Rimac Automobili

## Doctoral study programme

Branches:  
Communication and Informatics,  
Computer Engineering,  
Power Engineering

3 years  
180 ECTS

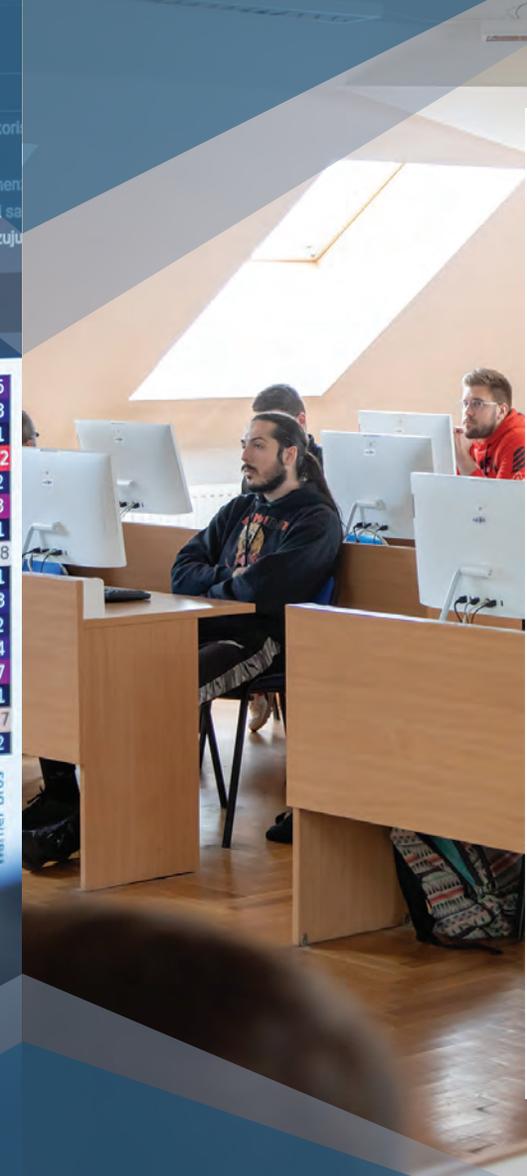
The Faculty of Electrical Engineering, Computer Science and Information Technology Osijek has offered a postgraduate study programme since 2000. The postgraduate doctoral study programme in Electrical Engineering, fully aligned with the Bologna Declaration, has been conducted at FERIT Osijek since the academic 2006/2007 year.

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cija.ipynb ☆ ☰  
Help  
+ Code + Text  
Vizualizirajte broj filmova koje je napravio svaki studio za svaki žanr. Pomoć: kort  
Biblioteka Seaborn olakšava izradu toplinskih karti. One predstavljaju dvodimenzionalne  
predstavljene bojama. Jednostavna toplinska karta pruža neposredan vizualni snimak  
brzo shvate najvažnije ili relevantne podatkovne točke. Varijable koje se prikazuju  
1 df2 = pd.crosstab(movies['Main_Genre'],movies['studio'])  
2 sns.heatmap(df2, annot=True, vmin = 0, vmax = 20)
```

Upon completion of the postgraduate doctoral study programme, students can conduct research projects, develop and apply new technologies, and educate professional and scientific staff.

The postgraduate study has three branches - Power Engineering, Communications and Informatics, and Computer Engineering.





### **Branch Power Engineering**

The Postgraduate doctoral study programme in Power Engineering builds upon the Master's degree in Electrical Engineering, offering advanced training in conventional and distributed power generation, modern power grids and systems, efficient energy use and management, and the electricity market. The programme provides a thorough understanding of the physical processes and theoretical principles underlying these areas, along with advanced scientific methods for planning, designing, analysing, managing, protecting, and maintaining power systems.

### **Branch Communications and Informatics**

The postgraduate doctoral study programme in Communications and Informatics builds upon and deepens knowledge of communication network technologies, wireless communication systems, integrated circuit design, modulation techniques, advanced image and video processing, television software, antenna systems, broadband multimedia services, advanced communication systems, and cybersecurity.

Students gain a strong theoretical foundation and develop expertise in scientific methods for analysing, optimising, planning, and designing communication and information systems, radio-communication systems, multimedia systems, and intelligent broadband digital integrated services networks.

### **Branch Computer Engineering**

The postgraduate doctoral study programme in Computer Engineering builds upon and deepens knowledge of algorithmic problem-solving approaches, modern software engineering methods, computer system analysis and design, data analysis systems across various fields, distributed and expert systems, and system and application software solutions.

Students gain a solid theoretical foundation and expertise in scientific methods for analysing, optimising, planning, and designing contemporary computer systems for industrial and business applications, as well as modern computer architectures and their software support.



## SCIENTIFIC AND RESEARCH ACTIVITY

Research at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek is aligned with current global trends and focuses on generating new knowledge in computer science, information and communication technologies, automation, power engineering, electrical machines, and the automotive industry.

Faculty researchers participate as project leaders or team members in scientific and development projects that drive innovation, create new knowledge, and facilitate technology transfer from the university to industry.

Integrating research and teaching is fundamental to the quality of higher education. The expertise gained through research allows the Faculty to provide cutting-edge knowledge, while involving students in research activities introduces them to the

latest technologies and prepares them for future challenges.

The Faculty's research topics are compatible with the European Union's strategic priority (The European Green Deal) and in particular with the following objectives:

- investing in environmentally friendly technologies;
- encouraging the industry to innovate;
- increasing the energy efficiency of buildings;
- cooperating with international partners on improving global environmental standards.

Furthermore, the Faculty's research topics include all the guidelines of the European Union's strategic priority - Europe fit for the digital age, with a particular focus on the following common objectives:

- research in the field of artificial intelligence;
- increase funding for the development and application of artificial intelligence with the help of the European Investment Fund;
- application of artificial intelligence to increase the efficiency of public procurement;
- green transition, with the European Green Deal as Europe's new growth strategy;
- research, development and implementation of world-class supercomputers and data infrastructure;
- research of cloud computing security;
- research in the field of cyber security.

To strengthen and advance the Faculty's research activities, a dedicated and independent organisational unit, the Scientific Research Centre for Electrical Engineering and Computer Science, was established in 2018.

Research at the Scientific Research Centre for Electrical Engineering and Computer Science is organised into ten research groups, which drive scientific activity in specific areas in line with the EU Smart Specialisation Strategy (S3) policy framework:

- IG01 - Research Group for Advanced Teaching Methods in Technical Sciences
- IG02 - Research Group for High-Performance Computing and Data Analysis
- IG03 - Research Group for Computer Science and Human-Computer Interaction
- IG04 - Research Group for Intelligent Systems and Robotics

- IG05 - Research Group for Computer Engineering
- IG06 - Research Group for Advanced Industrial Systems
- IG07 - Research Group for Advanced Power Technologies and Systems
- IG08 - Research Group for Information and Communication Technologies
- IG09 - Research Group for Intelligent Vehicles
- IG10 - Research Group for Biomedical Engineering

More details can be found at <https://www.ferit.unios.hr/research-groups>



# Centre for Artificial Intelligence

In 2024, the Centre for Artificial Intelligence was established at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek. As the Faculty's central hub for excellence in AI research, education, and innovation, the Centre brings together experts in electrical engineering, computer science, and information technology to **tackle real-world challenges** in areas such as robotics, healthcare, agriculture, power engineering, intelligent vehicles, and smart industry. The Centre is committed to advancing the **understanding and visibility** of artificial intelligence through a variety of activities, including outreach and **popularisation** efforts, targeted lectures, **scientific research**, and **collaboration with industry leaders**. By forming strategic partnerships with industry and public institutions, the Centre delivers **innovative solutions** while creating valuable internship and project opportunities for students and researchers, further strengthening the Faculty's role in this rapidly evolving field.



<https://ferit.ai/>





## Centre for Cybersecurity

A dedicated Centre for Cybersecurity was established in December 2025 at the Faculty of Electrical Engineering, Computer Science and Information Technology to provide an interdisciplinary response to the rapidly growing digital threats facing industry, public institutions, and citizens. The Centre advances the field through **scientific and professional research** while enhancing educational programmes. In addition to updating curricula, the Centre develops **lifelong learning initiatives** to keep professionals and students informed about emerging threats. It emphasises collaboration with **industry** through joint projects that bridge the gap between academic theory and practical application. To promote a security-conscious culture, the Centre engages the community through **awareness campaigns**, conferences, and workshops. It also serves as a strategic resource, offering **expert guidance** on best practices and regulatory compliance.



# Croatian Competence Centre for Semiconductors (CROCCS)

The Croatian Competence Centre for Semiconductors (CROCCS) was established in May 2025 to bridge the gap between high-level academic expertise and the local electronics industry. Currently, many skilled engineers either leave Croatia or work below their potential because domestic companies rely on standard, off-the-shelf components rather than custom chip design.

To address this, a consortium of leading universities and research institutes, including the University of Zagreb Faculty of Electrical Engineering and Computing (FER), Josip Juraj Strossmayer University of Osijek Faculty of Electrical Engineering, Computer Science and Information Technology Osijek (FERIT), University of Split Faculty of Science (PMFST), Ruđer Bošković Institute (RBI), Institute of Physics, Zagreb (IFZ), and KONČAR - Electrical Engineering Institute Ltd., provides a comprehensive pipeline of support, including specialised technical training and access to advanced design tools. By offering facilities for prototyping and testing, the initiative enables small businesses to experiment with integrated circuits without prohibitive financial risk. Ultimately, CROCCS aims to modernise the economy by promoting high-value semiconductor innovation and retaining local talent.

**KONČAR**  
INSTITUT ZA ELEKTROTEHNIKU

 Institut za fiziku

**FER**  UNIVERSITET U ZAGREBU  
Fakultet  
elektrotehnike  
i računarstva

 Institut  
Ruđer  
Bošković

 **FERIT**  
FACULTY OF ELECTRICAL ENGINEERING, COMPUTER  
SCIENCE AND INFORMATION TECHNOLOGY **OSIJEK**

 **Pmf**  
Prirodoslovno-matematički fakultet Split



**International Conference on Smart Systems and Technologies (SST)**  
To enhance international cooperation and scientific recognition, the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek has been organising and hosting the **International Conference on Smart Systems and Technologies (SST)** since 2016.

**International Journal of Electrical and Computer Engineering Systems**  
The Faculty of Electrical Engineering, Computer Science and Information Technology Osijek has been publishing the international scientific journal entitled **International Journal of Electrical and Computer Engineering Systems** since 2010. The journal features theoretical and applied research results from electrical and computer engineering and related interdisciplinary fields. More information is available on the journal's official website: <https://ijeces.ferit.hr/index.php/ijeces>.

<https://sst-conference.org>



<https://ijeces.ferit.hr/>



# PROFESSIONAL ACTIVITY AND COOPERATION WITH INDUSTRY

Collaboration with industry is a central part of FERIT's mission, connecting academic expertise with practical application and technological innovation. These partnerships help ensure that education and research stay aligned with the evolving needs of the economy while promoting mutual growth and knowledge exchange. Industry cooperation is realised through seven key forms of engagement:

## **Guest Lectures by Industry Experts**

Leading professionals from diverse industrial sectors are regularly invited to deliver guest lectures, enriching the curriculum with first-hand insights into current industry practices, emerging technologies, and real-world problem-solving.

## **Collaborative Workshops**

Joint workshops offer a platform for applied learning and knowledge transfer, bringing together students, faculty, and industry professionals to tackle contemporary challenges and share expertise.

## **Student Internships**

Structured internship programmes allow students to gain practical experience by applying theoretical knowledge in real industrial settings, developing essential skills, and enhancing employability.

## **Bachelor's and Master's Theses**

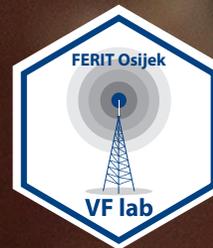
Many final theses are carried out in collaboration with industry partners, enabling students to conduct applied research that contributes directly to innovation and process improvement within companies.

## **Partnerships in Scientific Research Projects**

FERIT collaborates with industry partners on joint research projects, driving the development of new technologies, methodologies, and applications that benefit both academia and business.

## **Contracted Research Studies for Companies**

Companies work with FERIT researchers on specialised studies that address specific R&D needs, providing scientifically grounded analyses, prototypes, and innovative solutions.



### **Professional Studies and Laboratory Services**

The Faculty offers specialised professional courses and consultancy services for industry, supported by advanced laboratory facilities for measurements, testing, and analytical activities. Two of the Faculty's laboratories play a particularly important role in these professional services.

### ***Electromagnetic Compatibility Laboratory***

The Electromagnetic Compatibility Laboratory at the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek conducts measurements of low-frequency magnetic and electric fields and provides services related to power quality assurance.

### ***Laboratory for High Frequency Measurements***

Operating within the Department of Communications, the Laboratory for High-Frequency Measurements specialises in measuring, calculating, and estimating high-frequency electromagnetic fields. It also assesses the potential harmful effects of electromagnetic field radiation in high-frequency environments.



# STUP

In 2016, FERIT launched STUP, a web portal connecting students with potential employers, aiming to foster closer collaboration even during students' studies: <http://stup.ferit.hr/>.

The portal allows partner companies to share information about internships, opportunities for collaboration on master's theses, scholarships, job vacancies, and other activities relevant to FERIT students. At the same time, FERIT uses STUP to keep companies informed about curricular and extracurricular initiatives in which they can participate.

Since its launch:

- **560** partner companies have joined STUP;
- **305** companies have offered **2,500** internships;
- **1,896** students have completed internships at **278** companies;
- **863** students have shared their profiles with companies for potential collaboration on final papers, master's theses, additional internships, scholarships, or employment opportunities.



**STUP**

PORTAL ZA STUDENTE FERIT-A  
I POSLODAVCE



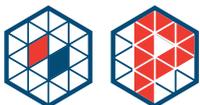
<https://stup.ferit.hr>



# Pro-Student

The Faculty actively supports students' entrepreneurial ambitions, helping them launch their own businesses. The Pro-Student competition (<http://pro-student.ferit.hr/>) encourages and rewards the most promising student ideas, whether commercially viable projects (through the KOMPOT call) or non-commercial initiatives of student interest (through the ZAPRO call).

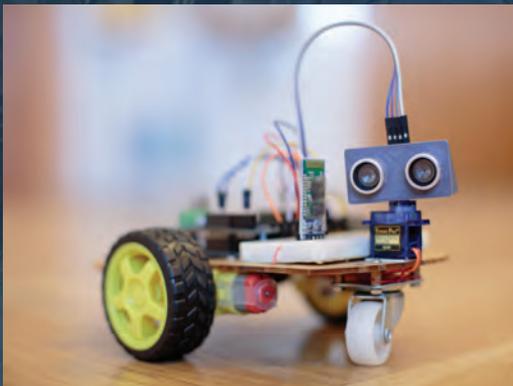
Through this initiative, the Faculty aims to ease students' transition to "life after FERIT" by introducing them to the labour market, increasing their visibility, and facilitating recruitment -whether they choose to join a company or start their own venture.



**Pro- Student**  
PROJECTS CARRIED OUT  
BY FERIT STUDENTS



<https://pro-student.ferit.hr/>



# DOVIK

## Open Days and Career Day: Connect with the Future!



<https://dovik.ferit.hr/>

DOVIK, the Open Days and Career Day, is a unique annual event that connects FERIT students with leading employers from a wide range of industries. Its goal is to bridge the gap between university and the job market, offering students opportunities for internships, volunteering, and employment.

The event features a variety of activities, including one-on-one interviews with employers, panel discussions, expert lectures, interactive workshops, and forums. These activities help students develop essential career skills, explore current industry trends, and build valuable professional networks.

DOVIK also provides excellent informal networking opportunities. Through the exhibition area and social gatherings, students can make personal connections, seek advice, and leave a lasting impression on potential future employers.

More information is available at <https://dovik.ferit.hr/>.







**LABUS**

LABORATORY FOR SECONDARY  
AND PRIMARY SCHOOL STUDENTS



<https://labus.ferit.hr>

# LABUS

## What is LABUS?

LABUS (Laboratory for Secondary and Primary School Students) is a portal developed by FERIT for primary and secondary school students and teachers, particularly those teaching mathematics, physics, electrical engineering, computer science, and information technology.

LABUS functions as a hands-on student workshop, where learners gain first-hand experience with physical laws through experiments and the use of various measurement instruments. In the process, students develop experimental, analytical, and teamwork skills.

At the heart of the LABUS portal is a collection of experiments and laboratory exercises, primarily designed for secondary school students, but also suitable for primary education. These exercises are organised by topic, covering both fundamental physics and applied engineering fields.

## LABUS ACTIVITIES

- Laboratory exercises: Integrated into the curriculum and ongoing school-year programme, conducted at times arranged with primary and secondary school teachers.
- Half-day and full-day workshops: Include hands-on laboratory exercise "kits" for practical learning.
- Winter and summer schools for extended hands-on experiences.
- Support for competitions: Assistance for county- and national-level science and technical competitions

## WHERE IS LABUS?

LABUS activities take place in the laboratories at FERIT and at the Centre of Technical Culture in Osijek.

For more information, visit <http://labus.ferit.hr/>.

## LABUS FAIR

Labus Fair is one of the key activities organized by LABUS (<http://labus.ferit.hr/>), a permanent FERIT programme aimed at connecting primary and secondary STEM classes with higher education engineering courses, while promoting research fields in which FERIT faculty members are engaged.

The Fair is a two-day event held at the end of September on the open spaces and in the laboratories of FERIT at the Campus facilities (Cara Hadrijana 10b). It is designed for primary and secondary school students and teachers, as well as kindergarten children and other members of the public. The event features dozens of presentations and workshops in mathematics, physics, and applied engineering fields, including electrical engineering, energy and environmental preservation, electronics, automation, robotics, computing, and information technology. Through interactive exhibition stands and specialised laboratories, faculty, assistants, and students showcase research achievements and teach practical engineering skills, demonstrating the use of modern technologies and making science engaging and accessible.

By combining education and entertainment, Labus Fair inspires visitors to explore STEM subjects and consider future careers in science and engineering. Each year, over 1,500 visitors of all ages attend the event, including students and teachers from Osijek-Baranja County, other Slavonian counties, and neighbouring countries such as Bosnia and Herzegovina and Serbia.



# INTERNATIONAL COOPERATION

The Faculty of Electrical Engineering, Computer Science and Information Technology Osijek is committed to international collaboration, working closely with scientific and educational institutions around the world. Led by the Department for Research and Professional Projects, the Faculty's cooperation initiatives include:

- Staff mobility: Opportunities for academic and non-academic staff to participate in teaching and research exchange programmes.
- Student mobility: A variety of international options, including practical training, language courses, and participation in research projects.
- Research abroad: Support for students conducting research for their Bachelor's, Master's, and Doctoral theses.





<https://www.ferit.unios.hr/international-cooperation/incoming-student-mobility>



## The Erasmus+ Programme

Through the Erasmus+ Programme, students have the opportunity to study and gain practical experience abroad, acquiring new skills and significantly enhancing their employability. For incoming students, the Faculty of Electrical Engineering, Computer Science and Information Technology Osijek offers a wide range of courses taught entirely in English.

The programme also supports teaching and non-teaching staff by providing opportunities to:

- Enhance teaching practices: Deepen teaching skills within the official higher education curriculum, with a focus on European integration studies.
- Conduct and supervise research: Participate in international research projects and oversee student research.
- Professional development: Take part in teacher training and other educational development activities.

## IAESTE

(International Association for the Exchange of Students for Technical Experience)

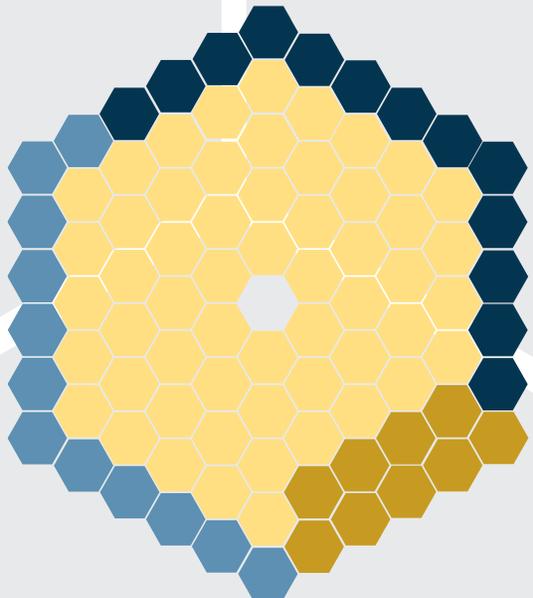
IAESTE is an independent, non-profit, and non-political organisation with member states in over 100 countries. It connects students in technical fields, primarily science and engineering, with paid, course-related professional training abroad.

Since its inception, IAESTE Osijek has been run entirely by student volunteers. In addition to facilitating incoming and outgoing internships, the Osijek chapter promotes continuous learning by organizing seminars, trips to exhibitions, and specialized professional events abroad.



<https://www.iaeste.hr/>

## PREMISES



- 12** LABORATORIES
- 56** TEACHERS' OFFICES
- 13** LECTURE HALLS
- 9** COMPUTER CLASSROOMS

## PEOPLE

- 1800 +** STUDENTS
- 170 +** EMPLOYEES
- 120 +** TEACHING AND RESEARCH EMPLOYEES
- 40 +** EXTERNAL ASSOCIATES

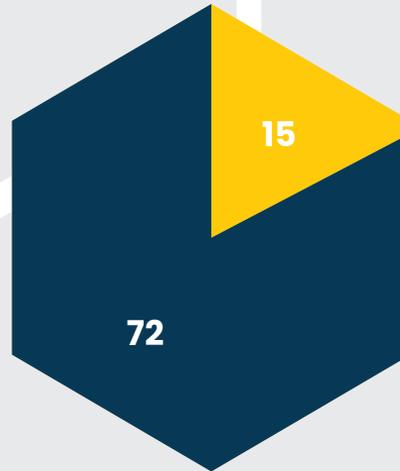


**FERIT** in figures



## Total value of projects (2021-2025)

### Number of projects



	National research projects
	Total Value <b>55.385.227,58 €</b>
	FERIT budget share <b>9.143.550,59 €</b>
	International research projects
	Total Value <b>67.187.856,26 €</b>
	FERIT budget share <b>1.408.505,76 €</b>
	<b>Total</b>
	Total Value 122.573.083,84 €
	FERIT <b>10.552.056,35 €</b>

## Scientific publications (2021-2025)

International journals **250+** Q1/Q2 **110+**

International conferences **270+**



## PARTNER INSTITUTIONS

### **Bosnia and Herzegovina**

- Faculty of Electrical Engineering, University of Tuzla
- Faculty of Mechanical Engineering in Mostar, University of Mostar

### **Bulgaria**

- Angel Kanchev University of Ruse
- Technical University of Gabrovo
- Technical University Varna

### **France**

- Bilingual Graduate School of Engineering
- Télécom Paris, Polytechnic Institute of Paris
- University of Lorraine

### **Germany**

- Technical University of Applied Sciences Würzburg-Schweinfurt
- Hochschule Bremen, City University of Applied Sciences
- Hamm-Lippstadt University of Applied Sciences
- Rosenheim University of Applied Sciences
- Saarland University

### **Hungary**

- John von Neumann University
- Óbuda University
- Faculty of Engineering and Information Technology, University of Pécs

### **India**

- Woxsen University

### **Italy**

- University of Pegaso
- University of LAquila

### **Latvia**

- Latvia University of Life Sciences and Technologies

### **Lithuania**

- Vytautas Magnus University

### **North Macedonia**

- Goce Delcev University
- International Balkan University
- International Slavic University "Gavrilo Romanovich Derzhavin"
- International University of Struga
- South East European University
- University of Information Science and Technology "Saint Paul the Apostle"

### **Poland**

- AGH University of Science and Technology
- Cracow University of Technology
- Jagiellonian University
- Lodz University of Technology
- Lublin University of Technology

- Rzeszow University of Technology
- University of Applied Sciences in Nysa
- Witelon State University of Applied Sciences
- Higher School of Vocational Education

### **Portugal**

- Polytechnic Institute of Porto
- Polytechnic Institute of Beja
- Polytechnic Institute of Bragança
- Polytechnic Institute of Portalegre
- Polytechnic Institute of Santarém
- Universidade Lusofona do Porto

### **Romania**

- "1 Decembrie 1918" University of Alba Iulia
- "Lower Danube" University of Galati

### **Serbia**

- Academy of Technical and Art Applied Studies Belgrade
- Educons University
- Faculty of Technical Sciences, University of Novi Sad
- Subotica Tech College of Applied Sciences
- University of Kragujevac

### **Slovakia**

- Faculty of Electrical Engineering and Information Technology in Bratislava

- Slovak University of Technology in Bratislava

### **Slovenia**

- University of Maribor

### **Spain**

- Universitat Politècnica de Catalunya (UPC)
- University of Granada, Faculty of Education, Economy and Technology in Ceuta

### **Sweden**

- Hogskolan Vast
- Mälardalen University
- Uppsala University

### **Switzerland**

- Hochschule für Technik der Fachhochschule Nordwestschweiz

### **Türkiye**

- Aksaray University
- Kahramanmaraş İstiklal University
- Konya Technical University
- Burdur Mehmet Akif Ersoy University
- Yüzmir Institute of Technology

### **USA**

- North Carolina State University