UNIVERSITY OF ŽILINA
Faculty of Electrical Engineering and Information Technology

CONTACT

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MASTER'S DEGREE STUDY

ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2025/2026

MASTER´S DEGREE STUDY PROGRAMMES	
FULL-TIME STUDY LENGTH OF STUDY 2 YEARS	**PART-TIME STUDY** LENGTH OF STUDY 2 YEARS
Biomedical Engineering	-
Photonics	-
Multimedia Engineering	-
Process Control	-
Telecommunications and Radio-communications Engineering	-
Power Electronics Systems	-

Note:
- by selecting optional subjects for the study programme Power Electronics Systems, the students specialise in the following areas: Autotronics, Power Engineering, Electric Drives and Traction, Power Electronics

Detailed information about the study programmes:
- curriculum,
- course information sheets
- available at: https://vzdelavanie.uniza.sk/vzdelavanie/plany.php

MASTER´S DEGREE STUDY		

STUDY PROGRAMME / FIELD OF STUDY	PLANNED CAPACITY	
	FULL-TIME	PART-TIME
Biomedical Engineering / Electrical and Electronics Engineering	30	-
Photonics / Electrical and Electronics Engineering	20	-
Multimedia Engineering / Computer Science	40	-
Process Control / Cybernetics	40	-
Telecommunications and Radiocommunications Engineering / Computer Science	40	-
Power Electronic Systems – specialization Autotronics / Electrical and Electronics Engineering	20	-
Power Electronic Systems – specialization Power Engineering / Electrical and Electronics Engineering	40	-
Power Electronic Systems – specialization Electric Drives and Electric Vehicles / Electrical and Electronics Engineering	20	-
Power Electronic Systems – specialization Power Electronics / Electrical and Electronics Engineering	20	-
TOTAL	270	-

In case the applicants for master's degree study have shown an increased interest in a specific study programme (above the planned capacity), it is in the competence of the Dean of the Faculty of Electrical Engineering and Information Technology UNIZA to decide on admission of more students to study this study programme beyond the planned capacity. Such a change must be consulted with the head of the department that ensures the relevant study programme.

In case of a low number of applicants for a specific full-time study programme, the Faculty retains the right not to open this study programme and to offer applicants another study programme in the same or related field of study.

TERMS AND CONDITIONS OF ADMISSION

Basic condition of admission

The basic condition for admission to the master's (engineering) degree study (study programme of the second degree) at the Faculty of Electrical Engineering and Information Technology (FEIT UNIZA) is the full completion of the first degree of higher education (Higher Education Act, No.131/2002 Coll. as amended). In case of a foreign applicant or a student who has completed his/her study abroad, he/she shall submit along with the application form (no later than on the date of enrolment) a decision on the recognition of the certificate of completion of the first degree of higher education recognized by a relevant institution in the Slovak Republic or he/she shall ask UNIZA for the recognition of the certificate of education.

Other conditions of admission

Admission procedure
The conditions of the admission procedure are listed in more detail on the Faculty website: https://feit.uniza.sk/podmienky-prijatia-inzinierske-studium/.

Language competence
Written and oral command of the Slovak language or the Czech language is required for study at the Faculty. An applicant who has obtained higher education of the first degree abroad (except for the Czech Republic) and is applying to study in the Slovak language will submit along with his/her application form for university studies or at the latest on the date of the enrolment for the study a certificate/proof of proficiency in the Slovak language, at least at B1 level (according to the CEFR for Languages).

ADMISSION OF FOREIGN STUDENTS

The basic and other terms and conditions of admission are applicable for applicants from abroad as well as for applicants from Slovakia.

Foreign students who study in a foreign language (i.e. not Slovak), pay the tuition fee as stated in Section 92 (8) of the Higher Education Act. The tuition fee is specified by the UNIZA directive and published for the respective academic year on the University website. Foreign students who study in the Slovak language do not have to pay the tuition fee. Applicants from the Czech Republic can use the form valid in the Czech Republic to submit their application for study. Applicants who do not actively speak Slovak or Czech are required to successfully complete their language training (it is possible to attend the Slovak language courses at UNIZA). For foreign applicants who were admitted on the basis of intergovernmental agreements, bilateral agreements or Slovak government grants, terms and conditions stated in the respective documents are applicable.

APPLICATION FORM

Application forms shall be submitted for the individual study programmes.

If the applicant wants to apply for more than one study programme, it is necessary to submit individual application forms for each study programme separately whereas the payment of the respective admission fee is required.

Applicants have to fill in the electronic application form available at the website of the Faculty of Electrical Engineering and Information Technology (https://feit.uniza.sk/elektronicka-prihlaska-ing/ or on the Portal VS (University Portal): https://prihlaskavs.sk/sk/).

The required attachments must be included in the application form and sent electronically or by post to the FEIT Faculty UNIZA address by the stipulated deadlines.

If the application form is incomplete, the applicant will be requested to complete it. In the event of non-participation in the admission procedure or a failure in the admission procedure the Faculty does not refund the admission procedure fee. If the applicant wants to take part in the admission procedure at several faculties of UNIZA, the application forms must be submitted separately to each Faculty with the payment of the relevant fee.

Attachments to the master's degree application form:
- curriculum vitae,
- proof of payment of the admission fee,
- information on the results of previous study,
- for applicants who were or still are the students of the bachelor´s degree study at the Faculty of Electrical Engineering and Information Technology UNIZA, the Department for Education of the Faculty of Electrical Engineering and Information Technology UNIZA will provide the information to the application form for the 2nd degree of study;
- other applicants shall enclose with the application form the list of subjects and marks obtained during their previous university study validated by the Faculty or University/Higher Education Institution that issued the list; by the date of the admission procedure they shall submit by post or attach electronically copies of the documents of completion of the first degree university study (diploma, certificate on state examination and diploma supplement).

Admission fee:

Send **€ 20** to: Žilinská univerzita v Žiline, Univerzitná 1, 010 26 Žilina

Bank:	Štátna pokladnica
IBAN:	SK74 8180 0000 0070 0026 9917
Const. symbol:	0308
Variable symbol:	10332 –inžinierske štúdium

Payment method: payment can be made by bank transfer or postal order to the above account.

Proof of payment: proof of payment is to be sent to the Faculty address with the application form.

Tuition fees –in accordance with the Higher Education Act. The information on the amount of the tuition fee for the relevant academic year will be published on the website of the University of Žilina within the stipulated deadlines.

With payment of the admission fee from the EU member states, the EES countries, territories that are considered part of the EU (Treaty of Rome, Section 299) and SEPA countries, it is necessary to use **BIC: SPSRSKBAXXX**, **IBAN: SK74 8180 0000 0070 0026 9917**.

USEFUL DATES

Virtual Open Day	Open Day	Deadline for submitting the application form	Entrance examination
12 March 2025	12 February 2025	until 30 April 2025	19 – 20 June 2025

ACCOMMODATION

Accommodation in modern reconstructed dormitories directly on the campus of the University of Žilina at Veľký Diel – no need to travel to classes. **More information at www.iklub.sk. Monthly accommodation fee: € € 59 – € 71**.

CATERING

Students can use the services of the catering facility of the University of Žilina. **Price for food: € 1.30 – € 4.80**.

SCHOLARSHIPS

Students of all study programmes can obtain motivational scholarships (for excellent results or exceptional achievements) in accordance with the stated criteria up to the amount of € 1,200. **Students of all study programmes can obtain motivational departmental scholarships in accordance with the stated criteria**. In case of an unfavourable social situation, the student can apply for a social scholarship or a maternity scholarship during the study.

FOLLOW-UP STUDY AFTER COMPLETION OF MASTER´S DEGREE STUDY

There is a possibility of extended study within follow-up doctoral degree study programmes at the Faculty of Electrical Engineering and Information Technology UNIZA in the academic year 2025/2026 – Electro-technologies and Materials, Process Control, Heavy Current Electrical Engineering, Telecommunications, Theory of Electrical Engineering (respective information on the particular study programmes can be found on the university website https://feit.uniza.sk/studijne-programy-doktorandske-studium/). After completing the master's (engineering) degree, it is necessary to verify the current offer of study programmes in a particular academic year.

GRADUATE PROSPECTS

MASTER´S DEGREE STUDY PROGRAMMES

BIOMEDICAL ENGINEERING
(Field of study Electrical and Electronics Engineering)
The graduate has an overview of modern technical tools of biomedicine, diagnostic, medical and rehabilitation devices, their safe use and the most recent world trend in their development. The graduate acquired knowledge in theoretical and selected clinical medical disciplines in order to understand the purpose of application of technical tools, ability to assess functionality and ability to create conditions for qualified communication with medical doctors. He/she has a wide knowledge of existing information systems and technologies. The graduate can successfully apply in all fields of technical and information provision of health care facilities, in institutes and laboratories of biomedical research and development, in the field of information systems and in technical management, especially of medical facilities. He/she will also work as a senior executive in the management of medical facilities, in companies that work with biomedical technology.
Software skills: C Language, HTML, PHP, MATLAB, Simulink, CST-studio suite.

PHOTONICS
(Field of study Electrical and Electronics Engineering)

The graduate of the study programme Photonics is very well prepared analytically and technologically to deal with the design, preparation and production of semiconductors, crystals, opto-electronics, applied photonics, sensors, or to deal with the proposal of optical design or optical modelling. Knowledge in the field of nanotechnology and nanophotonics enables the graduates of the study programme Photonics to find employment in the field of modern technologies focused on research and innovation throughout the EU. Technological progress thanks to photonic technologies and innovation provides the graduates of the study programme Photonics with the opportunity to further specialise and adapt to new advanced technologies. The interconnection of numerical tools and programming languages with photonics technologies already during their studies allows graduates to gain the necessary experience and to be able to analytically solve technical and information requirements and other practical tasks. Software skills: MATLAB, LabVIEW, ANSYS-SPEOS, Lumerical

MULTIMEDIA ENGINEERING
(Field of study Computer Science)

The graduate of the master´s (engineering) study programme Multimedia Engineering has deepened his/her knowledge of the theoretical basis of the field of study Informatics, including digital and analogue processing of video and audio signals, processing and transmission of multimedia streams through various types of communication technologies, networks and services, development of interfaces and applications. He/she is an expert with multidisciplinary overlap with artistic, technical and informational knowledge that he/she can apply in the field of multimedia application development. By selecting compulsory elective courses, he/she can specialise more narrowly in either image, graphic or audio information processing. Knowledge of web technologies and services, 2D/3D graphics and animation techniques, digital processing of multimedia content including machine learning methods, 3D design, game design, mobile applications, 3D applications for augmented and virtual reality are important components of the knowledge. He/she will have the ability to specialise and adapt at different levels according to the needs of practice, development and research, as well as the ability to continuously deepen knowledge of the field. The graduate has acquired the knowledge and skills that will enable him/her to work as a specialist, both independently as well as in teams, to solve projects integrating the technical and creative levels into a single entity, or to lead these teams. His/her employability on the labour market is mostly in positions as a multimedia application developer, web application developer, system analyst, data specialist and game designer.
Software skills: ADOBE package, HTML, PHP, MySQL, Blender, Unity 3D, Android studio, JAVA, Microsoft Direct3D, OpenGL, After Effect, ZScan, Matlab

PROCESS CONTROL
(Field of study Cybernetics)

Graduates acquired education in the field of analysis and synthesis of automated control and information systems, especially in the area of processing and transfer of information in the management of safety critical processes. Graduates of the study programme Process Control can specialize in safe control of transportation process with an emphasis on intelligent transport systems, communication and signalling systems, industrial process control with a focus on robotic systems and the safety of control systems, or in the design of systems using artificial intelligence. They handle support telematics systems and safe control of industrial processes with an emphasis on complex technologies, safety critical manufacturing applications, intelligent buildings, security of information systems and modern computer networks, design of systems and architectures using artificial intelligence elements for computer vision, control and many other needs.
Software skills: PLC, PHP Language, MySQL, HTML Language, UML, OCL Language, MATLAB, PYTHON Language, SCADA/HMI systems.

TELECOMMUNICATIONS AND RADIO-COMMINICATIONS ENGINEERING
(Field of study Computer Science)

The graduate of the engineering study programme has acquired knowledge in the field of telecommunication and information systems and networks. He/she can explain and apply the basic approaches used in the case of planning and operation of communication networks and project management, together with knowledge of the principles of operation of second to fifth generation (2 – 5G) radio networks and microwave systems, in order to apply the knowledge gained in solving problems related to design, implementation and operation of microwave, radio, metallic and optical transmission systems, with a view to solving problems related to the optimal configuration of network nodes with respect to the guarantee of quality of service (QoS) for IP services, while possessing knowledge in the filed of measurement, design and management of transmission and operating systems, system components, and configuration of services. In addition, he/she has gained knowledge of design and verification and selected optical communication chain components and RF circuits used in radio networks through analytical and numerical tools. The graduate is prepared to adapt to the rapidly evolving modern ICT technologies and to

apply him/herself as a creative worker in technical development, telecommunication design and management, research as well as in all areas of application and development of telecommunication, radiocommunication and information and communication technologies and services.

Software skills: Phyton, C Language, C++, MATLAB, Java, HTML, CSS, SQL.

POWER ELECTRONIC SYSTEMS
(Field of study Electrical and Electronics Engineering)

The universality of this study programme guarantees a very wide employment of graduates on the labour market in the field of autotronics, power systems engineering, electric drives and electric traction, power electronics. The acquired knowledge can be applied in the most lucrative areas of electrical, mechanical and energy industry as well as in transport. In the future, their application in the field of services is expected. These are mainly the areas of development, design, projection and application of power and control electronic systems, mechatronic and automotive systems, their control nodes, superior control systems, industrial automation machines and robots and means of industrial automation. Due to the significant representation of subjects focused on programming and development of control software, the graduate can successfully find employment in very interesting job positions. Graduates of this field of study can apply for jobs in companies dealing with design, production and application of power electronic and/or mechatronic systems and industrial automation. They can also work in specialised machinery companies operating in the areas of the automotive industry, chemical and petrochemical industry, gas industry, paper production as well as transport.

Software skills: Freescale ARM, Texas Instruments DSP, ANSI C Language, EAGLE, OrCADPSpice, PLECS, LabVieW, Simulink, COMSOL, VHDL ISE Desing Suite. dSpace, Texas Instruments Education Modules.

ADDITIONAL EDUCATIONAL ACTIVITIES

In addition to education in a selected study programme, the Faculty of Electrical Engineering and Information Technology enables its students to obtain the **QUALITY MANAGER** certificate which allows them to significantly extend their application in practice, especially in production-oriented companies.

The faculty offers its students the opportunity to obtain the CLAD – Certified LabVIEW Associate Developer certificate from National Instruments company through the **LabVIEW Academy** which operates at our faculty. This certificate represents an excellent entry point for job seekers in companies dealing with automation, measurement, testing, industrial production or computer vision in LabVIEW.

The faculty also has the **Cisco Academy** where students can take advantage of free preparation to obtain Cisco Certified Network Associate industry certificates.

Our Faculty, together with its industrial partners, offers students **free study of professional English and German**, thanks to which they can expand their language skills in the field they are studying.

The Faculty of Electrical Engineering and Information Technology offers students **paid internships** with their industrial partners during their study. During their study, students are involved in solving real problems from the environment of partner companies.

The result of interdisciplinary education by means of top teachers is up to **96 %** employability of graduates in the field they studied, with an average **starting salary of € 1,526**.

During the master´s degree study the Faculty of Electrical Engineering and Information Technology offers engineering studies in a joint programme with the University of Catania (UNICA) in Sicily, Italy, in the field of study „Electrical Engineering", on the basis of a bilateral agreement. The joint study programme is designed and compiled on the basis of the experience of professors from both universities, as well as professionals from practice, so that students complete part of their studies at one university and part of their studies at the other and receive a comprehensive education during their studies. The students thus receive two diplomas (from each institution).