UNIVERSITY OF ŽILINA

Faculty of Electrical Engineering and Information Technology

BACHELOR´S DEGREE STUDY

CONTACT

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ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2027/2028

BACHELOR´S DEGREE STUDY PROGRAMMES	
FULL-TIME STUDY LENGTH OF STUDY 3 YEARS	**PART-TIME STUDY** LENGTH OF STUDY 3 YEARS
Control Engineering	-
Biomedical Engineering	-
Electrooptics	-
Electronics Engineering* specialisation: – Automotive Electronics – Electric Drives and Traction – Electrical Power Engineering – Power Electronics	-
Information Technology in Electrical Engineering (vocational study programme) ** specialisation: – Information Technology in Biomedical Engineering – Information Technology in Electrical Engineering Systems – Information Technology in the Field of Data Collection, Processing, Transmission and Display	-
Communication and Information Technologies	-
Multimedia Technologies	-

Note:
* In the study programme Electrical Engineering, by the selection of optional courses, the students may specialise in one of the following areas: Power Engineering, Autotronics, Power Engineering, Electric Drives and Traction
** In the Information Technology (IT) in Electrical Engineering study programme, students specialise in the following areas through their choice of optional courses: IT in biomedical engineering, IT in electrical engineering systems, and IT in data collection, processing, transmission and display.

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

EXPECTED NUMBER OF ACCEPTED APPLICANTS TO THE FIRST YEAR

BACHELOR´S DEGREE STUDY		
STUDY PROGRAMME / FIELD OF STUDY	**PLANNED CAPACITY**	
	FULL-TIME	**PART-TIME**
Control Engineering / Cybernetics	80	-
Biomedical Engineering / Electrical and Electronics Engineering	40	-
Electrooptics / Electrical Engineering	20	-
Electrical and Electronics Engineering (Autotronics) / Electrical and Electronics Engineering	40	-
Electrical and Electronics Engineering (Power Systems Engineering) / Electrical and Electronics Engineering	40	-
Electrical and Electronics Engineering (Electric Drives and Electric Traction) / Electrical and Electronics Engineering	40	-
Electrical and Electronics Engineering (Power Electronics) / Electrical and Electronics Engineering	40	-
Information Technology in Electrical Engineering (information technology in biomedical engineering) / Electrical Engineering	20	-
Information Technology in Electrical Engineering (information technology in electrical engineering systems) / Electrical Engineering	20	-
Information Technology in Electrical Engineering (information technology in electrical engineering systems) / Electrical Engineering	20	-
Communication and Information Technologies / Computer Science	100	-
Multimedia Technologies / Computer Science	100	-
TOTAL	560	-

In case the applicants for bachelor‘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.

TERMS AND CONDITIONS OF ADMISSION

Basic condition of admission

The basic condition for admission to the bachelor‘s degree study (the first-degree study programme) at the Faculty of Electrical Engineering and Information Technology (FEIT UNIZA) is the full completion of secondary general education or full secondary vocational education (Higher Education Act, No. 300/2025 Coll. as amended; hereinafter only referred to as “Higher Education Act“). In the case of a foreign applicant or a student who completed secondary education abroad, the education is comparable to that completed by a school leaving examination in the Slovak Republic. An applicant who completed secondary education abroad shall submit, along with the application form or more precisely, no later than on the date of enrolment, the decision on the recognition of the certificate of completion of secondary education recognized by a relevant institution in the Slovak Republic.

Other conditions of admission

1. Entrance exams for the study programme Multimedia Technologies

Applicants for the study programme Multimedia Technologies will undergo the entrance examination consisting of three parts:

- presentation of the applicant‘s motivation to study the study programme
- evaluation of the achieved study results of the applicant and the general overview of the applicant.
- presentation of the applicant‘s multimedia activities and knowledge in the scope of secondary school curriculum, including clarification of the procedures and techniques used.

2. **Admission procedure for other study programmes** (except for applicants for the study programme Multimedia Technologies)

The conditions of the admission procedure are listed in more detail on the faculty website: https://feit.uniza.sk/podmienky-prijatia-bakalarske-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 a secondary education 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 A2 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, in the case of Electrical Engineering and Information Technology in Electrical Engineering study programmes, for the selected specialisation. If the applicant wants to apply for more than one study programme, or its specialisation, they must submit individual application forms for each study programme separately, and pay the respective admission fee.

Applicants fill in the electronic application form via the Faculty of Electrical Engineering and Information Technology website (http://feit. uniza.sk/ in section Applicants for study) or the UNIZA University website https://vzdelavanie.uniza.sk/prijimacky/index.php or on the Portal VŠ (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 an applicant is not accepted into the admission procedure – i.e. if they do not meet the basic entry requirements, their application is incomplete, or they do not participate in the admission procedure – the admission fee will not be refunded.

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 bachelor's degree application form:

1. curriculum vitae,
2. proof of payment of the admission fee,
3. year-end report for the penultimate year of secondary school.

Optional attachments: additional documents required for admission without an entrance exam.

Upon completion of the school-leaving examination, applicants shall provide (send by post or attach to the electronic application form) a certified copy of the school-leaving examination certificate and the year-end report from the final year of secondary school study by a deadline, which will be announced to each applicant in writing.

Admission fee:

Send **€ 25** 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:	10331 - bakalárske 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 2027	10 February 2027	until 31 March 2027	15 – 16 June 2027

ACCOMADATION

The accommodation facilities of the University of Žilina provide accommodation according to the accommodation capacity, taking into account the distance between the student´s permanent residence and the seat of the University. 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: € 66 – € 134**.

BOARD

Students can use the services of the catering facility of the University of Žilina. **Price for food: € 1.10 – € 4.70**.

SCHOLARSHIPS

Students on all study programmes are eligible for incentive (academic merit, special and subject-specific) scholarships in line with the specified criteria. In the case of adverse social circumstances, a student may apply for a social scholarship during their studies, and in special cases, for a maternity scholarship.

FOLLOW-UP STUDY AFTER COMPLETION OF BACHELOR'S DEGREE STUDY

There is a possibility for continuing the bachelor´s degree study within the follow-up master´s (engineering) degree study programmes at the Faculty of Electrical Engineering and Information Technology UNIZA in the academic year 2027/2028 - Electrical Engineering (specializations: Autotronics, Electric Drives and Traction, Power Engineering, Power electronics), Photonics, Multimedia Engineering, Process Control, Telecommunications and Radio-Communications Engineering, (respective information on particular study programmes can be found at https://feit. uniza.sk/ponukane-studijne-programy-inzinierske-studium/). After the completion of the bachelor's degree study, it is necessary to verify the current offer of study programmes in a particular academic year.

GRADUATE PROSPECTS

BACHELOR´S DEGREE STUDY PROGRAMMES

CONTROL ENGINEERING

(Field of study Cybernetics)

The graduate acquired education in the field of automation and process control with the support of information and communication technologies. He/she has knowledge and practical experience in application of safety-critical control and communication systems, implemented mainly on the basis of PLCs and industrial networks. He/she will be able to work in the design, implementation and operation of control and information systems at process and operative levels. Theoretical knowledge acquired during the bachelor study will create good prerequisites for further education, either within the further forms of university study or within lifelong education.

Software skills: C language, C++, MATLAB, PLC, ATMEL, MS ACCESS, HTML, CSS, Tia Portal.

BIOMEDICAL ENGINEERING

(Field of study Electrical and Electronics Engineering)

The graduate gained knowledge in technical and medical courses with emphasis on electrical engineering and informatics in medicine. He/she acquired basic knowledge of medical technology and its applications, modern biomedical technology, principles of its operation, conditions of operation and safe use for diagnostic and therapeutic purposes. The graduate is able to assess the functionality of technical and computer-assisted equipment in the given conditions of medical facilities or laboratories and at the same time he/she is able to lead qualified communication with healthcare staff. He/she will find employment as a professional worker in medical facilities, biological laboratories, in the operation, service and sales of biomedical equipment.

Software skills: C Language, MATLAB, EAGLE, TI-TINA.

ELECTROOPTICS

(Field of study Electrical and Electronics Engineering)

During the bachelor's degree studies, the graduate Electro-optics study programme acquired the basics of natural and technical sciences with regard to the field of optics, opto-electronics and electronics. The technical skills and knowledge are also complemented by knowledge of programming. The combination of technical knowledge and skills creates a basis for employment not only in the field of semiconductor and semiconductor technology production and control processing, but thanks to the knowledge in the field of optics and opto-electronics, the graduate of Electro-optics is able to navigate and apply in the processes of preparation and production of LEDs, LD, Lidar technologies or other processes of preparation of optoelectronic systems. Theoretical as well as practical knowledge of graduates in the field of applied optics also provides them with the opportunity to find employment in the field of preparation and production of optical fibres and photonic elements for the transmission, detection and processing of optical signals for industrial, automotive, biomedical or military systems.

Software skills: MATLAB, C-Arduino, LabVIEW.

ELECTRICAL AND ELECTRONICS ENGINEERING

(Field of study Electrical and Electronics Engineering)

Study in this study programme is primarily oriented to mastering the basic and general knowledge necessary in a wide range of electrical engineering expertise, but at the same time it creates space through the choice of compulsory elective courses for closer specialisation (learning path) of the graduate in the field of autotronics, power system engineering, electric drives and electric traction, and power electronics. The study programme Electrical and Electronics Engineering is designed as academically oriented, which means that the main application of graduates should consist in the continuation at the 2nd level of study in study programmes focused on the above-mentioned specialisations, which is confirmed by the experience of graduates over the last 6 years. At the Faculty of Electrical Engineering and Information Technologies of the University of Žilina, graduates of the study programme Electrical Engineering are mainly prepared for the master´s (engineer) study programme Power Electronics Systems (PES), which provides students with the opportunity to continue their studies in the above-mentioned specialisations (learning paths). In terms of industrial practice, the graduates acquired theoretical knowledge as well as practical skills in order to master the principles, installation, operation, functions, service and repair of electrical products, devices and equipment in accordance with international standards. The graduate can find employment in all areas of electrical power engineering, mechatronics, robotics, applied microprocessor technology, electronics, opto-electronics, power electronics, computer design and construction in organizations of administrative, production, operational or repair nature.

Software skills: MS Office, MATLAB, SIMULINK, FEMM, MOTORSOLVE, SICHR, DIALUX, DSPACE, CODE WARIOR, LABWIEV, EMPT-ATP, MODES, GE-PSLF, RUPLAN, RS Logix, RS Link, RS View, Assembler, AVR Studio, EAGLE, OrCAD-PSPICE, PLECS.

INFORMATION TECHNOLOGY IN ELECTRICAL ENGINEERING
vocational study programme
(Electrical Engineering field of study)

The Information Technology in Electrical Engineering (ITE) study programme is designed to be vocation-oriented, i.e. graduates are assumed to find employment directly in the field, as the programme emphasises the acquisition of practical and personality skills – more than 50% of the teaching is conducted in the form of practical training. Graduates are practically-oriented engineers and specialists trained to perform professional activities in the field of electrical engineering using information technology (IT). During their studies, students may specialise in one of the following areas: data collection, processing, transmission and display; biomedical engineering; or electrical engineering systems. The graduate's skills and competences are significantly influenced by the experience gained during practical training in companies specialising in the chosen area of the study programme. As part of the course, students are required to complete extensive practical training in companies specialising in the development, manufacture, projection and supply of information and communication systems, biomedical engineering systems or heavy-current electrical engineering. The study programme is strongly focused on modern technologies within the relevant subject area and on solving real-world problems encountered in industrial practice. Graduates of the ITE study programme understand the principles of operation of electrical and electronic circuits, understand the properties of electrical signals and the methods of their transmission and processing, understand the methods of measuring physical quantities and recording quantities using sensor and measurement systems, understand the fundamentals of actuators, understand the fundamentals of automatic control, have an overview of data transmission technologies in both wired and wireless networks, understand the basic characteristics of various types of networks and have a basic understanding of network communication protocols, master the fundamentals of task algorithmisation, understand methods of processing, analysis and visualisation of data, possesses basic knowledge of data processing and storage, is familiar with the basic architectures of information systems based on server or cloud solutions, has knowledge of cyber security, and understands the nature of cyber attacks and data protection during transmission, storage and processing. A graduate specialising in IT within the field of data collection, processing, transmission and display can find employment as a computer network administrator – configuring and maintaining computer networks, a tester, a junior engineer in companies specialising in the development of software for mobile, desktop or web applications, an operator or administrator of information systems for the collection, transmission, processing, analysis and storage of data, a specialist in the implementation and management of sensor networks, IoT devices and systems, or a cyber security specialist. Graduates specialising in IT within the biomedical engineering field can find employment as subject matter experts – collaborating on the development and testing of biomedical instruments and equipment, testers, as a junior developer in companies specialising in medical applications, as a biomedical systems technician – providing technical support and managing biomedical systems in healthcare facilities, or as a research assistant – collaborating on research projects in the field of biomedical engineering. Graduates specialising in IT within the field of electrical engineering systems can find employment as electrical systems designers – designing and building electrical systems, an electrical and mechatronic systems technician – managing the operation and maintenance of control systems for electrical engineering, a safety technician – working in the field of electrical equipment safety inspections, or an energy consultant – providing expert advice in the field of renewable energy sources.
Software skills: MS Office, MATLAB, SIMULINK, DSPACE, CODE WARIOR, LABWIEV, EMPT-ATP, MODES, GE-PSLF, RUPLAN, RS Logix, RS Link, RS View, Asembler, AVR Studio, EAGLE, OrCAD-PSPICE, PLECS.

COMMUNICATION AND INFORMATION TECHNOLOGIES
(Field of study Computer Science)

The graduate of the bachelor's degree programme in Communication and Information Technologies in the field of study Informatics has acquired knowledge of the technologies used in fixed, optical and radio networks; the ability to analyse the characteristics of the most commonly used transmission media and to recognise the suitability of their use; to carry out basic configuration of network equipment and also to identify and solve problems in data networks that are related to the design and configuration of computer, transport and access networks. Furthermore, he/she has acquired knowledge of the implementation of algorithms in program form; can analyse and reproduce basic electronic circuits of analogue and digital nature; understands audio and video signal capture and processing technologies; can create and manage user profiles according to customer requirements, interact with databases, and create customised functions in the relevant programming language. In addition, the graduate has deepened his/her analytical, creative and critical thinking skills along with teamwork skills and will find employment as a designer, constructor, system designer, or as a specialist in various areas of ICT.
Software skills: Phyton, C Language, C++, MATLAB, Java, HTML, CSS, SQL.

MULTIMEDIA TECHNOLOGIES
(Field of study Computer Science)

The graduate is a professional with professional knowledge and technical skills in the field of informatics with a multidisciplinary overlap into creative multimedia production, which can be applied and interpreted in various sectors of audiovisual production. In addition to studying the theoretical basis of information and communication technologies, the student specialises in the areas of photographic and film technology, sound and image technology, including digital processing and distribution of video and

audio. The student is able to plan, design and implement various activities in the field of information technology and multimedia production. Creative-oriented courses ensure that graduates have the ability to create and process multimedia works and applications not only at an appropriate technical level, but also at an aesthetic and artistic level. The synergy of technical and creative education will enable the graduate to work as a specialist in the creation of multimedia presentations, in the positions of sound and image technicians and designers. The range of acquired knowledge and practical skills allows graduates to work in companies focused on information technology, advertising and consulting activities and in studios producing multimedia products as specialists, not only familiar with the technical background of creation, but also familiar with the creative component of their work. As this is an academically oriented study programme, the curriculum is designed to enable graduates to continue their studies in a follow-up study programme of the 2nd degree of Multimedia Engineering.
Software skills: Python, Java, Matlab, JSP, Blender, Adobe Premiere, Adobe After Effect, Adobe Audition, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Android Studio, HTML, CSS, SQL.

ADDITIONAL EDUCATIONAL ACTIVITIES

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**, enabling them to expand their language skills in the field they study.

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 per cent** employability of graduates in the field they studied, with an average **starting salary of € 1,526**.

Upon successful completion of the bachelor's degree, the Faculty of Electrical Engineering and Information Technology offers master´s (engineer) study 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).

Further training courses

BOOST CAMP FEIT

Between January and February 2028, the faculty is organising a preparation course in mathematics and physics for school-leaving students and applicants for bachelor's degree programmes at FEIT UNIZA. On this course, applicants can revise key topics from both courses, prepare for their school-leaving exams and, above all, discover how mathematics and physics are applied in electrical engineering, IT, robotics, automation and energy. In other words, the aim is to prepare for the school-leaving exams in maths or physics, ensure a better start at university, offer the chance of admission to FEIT UNIZA without an entrance exam, provide practical tasks rather than rote learning, explore the links between maths, physics and technology, and give demonstrations of the MOTIO and ROBOLAB laboratories.

INTRODUCTORY COURSE IN MATHEMATICS AND PHYSICS

One to two weeks before the start of the academic year, the faculty organises review courses in secondary school mathematics and physics for all students entering the first year of their bachelor's degree programme. After completing these courses, students usually have no difficulty with mathematics and physics during their studies.

Introductory Course to University Studies

BootFEIT is a multi-day welcoming event before the start of the academic year for all students entering their first year at FEIT UNIZA. It is a start to student life – stress-free, with support, new friends and practical information. You can find out more at: https://feitcity.sk/bootfeit.