



FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGIES BACHELOR'S DEGREE STUDY

UNIVERSITY OF ŽILINA Faculty of Electrical Engineering and Information Technologies

CONTACT

University of Žilina

Faculty of Electrical Engineering and Information Technologies

Univerzitná 8215/1, 010 26 Žilina

Tel.: 041/513 20 51

e-mail: studref@fel.uniza.sk

<http://fel.uniza.sk>

All the questions concerning your studies will be attended at the Department of Studies:

Tel.: 041/513 20 63, 20 64

Institute of Aurel Stodola in Liptovský Mikuláš

Faculty of Electrical Engineering and Information Technologies UNIZA, Liptovský Mikuláš

ul. kpt. Jána Nálepku 1390, 031 01 Liptovský Mikuláš

Tel: 041/513 14 83

e-mail: studijne@lm.uniza.sk

Coordinator for work with students with special needs:

doc. Ing. Peter Bracíník, PhD., Vice-dean for Education

tel.: 041/513 20 57

ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2019/2020

BACHELOR'S DEGREE STUDY PROGRAMMES	
FULL-TIME STUDY	PART-TIME STUDY*
LENGTH OF STUDY 3 YEARS	LENGTH OF STUDY 4 YEARS
Automation	-
Autotronics	-
Biomedical Engineering	-
Digital Technologies	Digital Technologies
Electrical Engineering	-
Multimedia Technologies	-
Telecommunications	-

** standard tuition fee for part-time study programmes is 500 € for an academic year*

Note:

- Bachelor's degree study programme Digital Technologies is taught only at the Institute of Aurel Stodola in Liptovský Mikuláš.
- In the study programme Electrical Engineering, by the selection of optional courses, the students may specialise in one of the following areas: Car Electrical Engineering, Electric Drives, Electric Power Systems, Power Electronic Systems.

Detailed information on particular study programmes

- syllabus,
- course information sheets

can be found at <http://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
Automation / Automation	60	-
Autotronics / Electrical Engineering	40	-
Biomedical Engineering / Biomedical Engineering	40	-
Digital Technologies / Telecommunications	80	30
Electrical Engineering / Electrical Engineering	120	-
Multimedia Technologies / Telecommunications	40	-
Telecommunications / Telecommunications	100	-
TOTAL NUMBER	480	30



TERMS AND CONDITIONS OF ADMISSION

The fundamental prerequisite of being accepted to the bachelor's degree study programme (first degree) is the full completion of secondary education or full secondary vocational education (Higher Education Act, n.131/2002 Coll.). In the case of a foreign applicant or student who has completed a secondary education abroad, the education is comparable with an education completed by a school leaving examination in the Slovak Republic. Applicant who has obtained a secondary education abroad will submit along with the application form or more precisely no later than the date of enrolment a document on completion of secondary education recognized by a relevant institution in the Slovak Republic.

Procedure for recognition of document on education

On the basis of submitted application, the document is recognised by a district office in the Slovak Republic after comparing the scope and content of education received with the scope and content of education required by the National Education Programme in the Slovak Republic.

In the case of recognition of document on education of a minor, the application shall be submitted by his/her legal representative.

The application form for the recognition of document can be found on the UNIZA website (English version) in the STUDY section.

List of enclosures to be submitted along with the application form:

- a) the authenticity of signatures and of the school's stamp mark on the document on completion of education must be certified by a relevant body (applicants for study abroad should arrange this immediately after receiving the document – before traveling to the Slovak Republic),
- b) a certified copy of the document on completion of education,
- c) a certified translation of the document into the official language of the Slovak Republic,
- d) a list of subjects and examinations completed,
- e) a certified translation of the list into the official language of the Slovak Republic,
- f) a copy of proof of identity,
- g) a proof of payment of administration fee.

Language competence – for study programmes that are carried out by the faculty in the Slovak language, written and oral command of Slovak or Czech language is required. Knowledge of at least one foreign language (English, German, French) is welcome. For study programmes that are carried out by the faculty in the English language, written and oral command of English is required. The applicants who do not actively speak Slovak or Czech are required to attend the language training. It is possible to attend the Slovak language courses at UNIZA. For more information, please contact the Institute of Lifelong Learning UNIZA <http://www.ucv.uniza.sk/ucv/?ur1=19&ur2=192&ur3=0>

- The basic and other terms and conditions of admission are applicable as for the applicants from abroad as for the applicants from Slovakia.
- Foreign students who study in a foreign language (i.e. not Slovak), pay the tuition fee as stated in § 92 Subsection 8 (Higher Education Act). The tuition fee is specified by the UNIZA directive for the respective academic year, which can be found on the university website. For the academic year 2019/20 the tuition fee is 3500 €.
- Students from abroad who study in the Slovak language do not have to pay the tuition fee.
- The applicants from the Czech Republic who want to apply and study in Žilina can use the application form available in the Czech Republic. The applicants who do not actively speak Slovak or Czech are required to attend the language training. (It is possible to attend the Slovak language courses at UNIZA).
- For foreign applicants who were accepted on the basis of intergovernmental agreements, bilateral agreements or Slovak government grants, terms and conditions stated in respective documents are applicable.



FORMS OF ADMISSION

1. No entrance exams

The Faculty will accept all the applicants (except applicants for the study programme Multimedia Technologies) who meet at least one of the following criteria:

- the secondary grammar school leavers and the secondary vocational school leavers of electrical fields with the average marks in Mathematics and in Physics in their annual secondary school certificates up to 2,00 inclusive,
- the secondary grammar school leavers and the secondary vocational school leavers of electrical fields who passed the school leaving examination in Mathematics or in Physics with the final mark not worse than “very good”.
- In case, the applicant for the university study at **the Faculty of Electrical Engineering and Information Technologies** UNIZA participates and succeeds in the subject competition (Olympiad) in Mathematics, Physics, Informatics and Electrical Engineering (district round), Students` Professional Activities – SPA (SOČ) (concerning electrical engineering and informatics) and in other competitions in the field of electrical engineering, the Faculty will consider it in the selection procedure.

2. Selection procedure

All the other applicants who do not meet the above stated criteria and all the applicants for the study programme Multimedia Technologies will undergo the selection procedure.

- In the selection procedure, the study results in Mathematics and Physics achieved during secondary school study are being assessed, whereas the type of the secondary school will be considered as well.
- The applicant's personal participation at the selection procedure is mandatory for the study programme Multimedia Technologies. The applicants for the study programme Multimedia Technologies will attend the interview focused on identification of their prerequisites for studying in this field (orientation in the field of multimedia technologies).
- For all other study programmes no personal participation is needed (no oral or written examinations take place).

Rules of selection Procedure

The applicants will be ranked in the order according to the study results achieved exclusively in Mathematics and Physics at their secondary school. The number of points is determined by multiplying the final average specified by the marks in the annual secondary school certificates and the school leaving certificate in Mathematics and Physics and a coefficient reflecting the type of secondary school TS and a number 100.

The coefficient of the type of school:

Secondary Grammar School:	TS = 1
Secondary Vocational School, electrical fields:	TS = 1,1
Secondary Vocational School, non- electrical fields:	TS = 1,5

For the applicants for the study programme Multimedia Technology, the resulting number of points is moreover multiplied by a coefficient MT, which has a value of 1 or 1.5 (depending on the success at the interview).

Applicants with the lowest ranking will be prioritised when accepting.

The Faculty accepts applicants based on their ranking until the planned capacity is reached. The study in individual study programmes will be opened only if there is a sufficient number of applicants.

The applicants shall indicate in the application the name of only one bachelor's degree of study he/she is applying for. The Dean of the Faculty of Electrical Engineering and Information technologies UNIZA is authorised to add the number of prospective students of the respective bachelor's study programmes up to the set capacity of enrolled students of the first year of bachelor's study programme from those applicants who meet conditions for being accepted for a different study programme but were not accepted due to its full capacity.



HOW TO APPLY

Application forms are to be submitted for individual study programmes.

In case the applicant is interested in more study programmes, it is necessary to apply for each one individually, including payment of the respective admission procedure fees.

Applicants have to fill in an electronic application form that can be found on the website of **the Faculty of Electrical Engineering and Information Technologies**: (<http://fel.uniza.sk/> in the section Uchádzači o štúdium) or on the university website <https://vzdelavanie.uniza.sk/prijimacky/index.php> or on the education portal: <https://prihlaskavs.sk/sk/>.

Concerning electronic application form, it is required to print it, sign it, enclose other required documents including the proof of payment of the fee and send it to the address FEIT UNIZA within the stipulated deadlines.

The incomplete study application form or the application form sent after the deadline will not be accepted.

In the absence or a failure of entrance exams, the faculty does not refund the admission fee.

If an applicant wants to take part in entrance exams at more faculties of UNIZA, the application forms have to be sent separately to each faculty and the respective admission procedure fees paid separately to each faculty.

Enclosures for the bachelor's degree study programmes (to be sent with application forms):

1. Curriculum Vitae,
 2. proof of payment of the admission fee,
 3. copies of annual secondary school certificates (they do not need to be notary verified).
- After passing the school leaving examination, the applicants will send the copy of the school leaving examination certificate as well as the copy of the last annual secondary school certificate (they do not need to be notary verified). The deadline for sending these documents will be announced to all applicants individually by mail.

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: 10331 – bakalárske štúdium

Payment method:

the payment can be paid by bank transfer or postal order to the account above.

Proof of payment:

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

With payment of the admission fee from the EU member states, the EES countries, territories that are considered a 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**.

Tuition fees – in accordance with the Higher Education Act, information about the amount of tuition for the respective academic year will be announced on the website of the University of Žilina.



USEFUL DATES

Open Day	Deadline for submitting the application form	Entrance exams
February, 5, 2019	until April, 5, 2019	June, 21, 2019



ACCOMMODATION

All the students of the first year of the bachelor degree studies are entitled to accommodation in accordance with the internal regulations of the university. **Student accommodation facilities cost approx: 70 € – 140 € per month.**



BOARD

Students can use services of catering facilities at the University of Žilina. **Price for food: 9 € per day.**



SCHOLARSHIPS

Students of all study programmes can obtain motivational scholarships (for excellent results or exceptional achievements) in accordance with the stated criteria. **Students of all study programmes can obtain motivational departmental scholarships in accordance with the stated criteria. Students can apply for a social scholarship at any time during the study.**



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

There is a possibility for continuing bachelor's degree studies within follow-up master's degree study programmes at **the Faculty of Electrical Engineering and Information Technologies UNIZA** in the academic year 2019/2020 – Applied Telematics, Biomedical Engineering, Electric Power Systems, Electric Drives, Photonics, Process Control, Telecommunications and Radiocommunications Engineering, Multimedia Engineering, Power (and) Electronic Systems (respective information about particular study programmes is available at the university website).



GRADUATE PROSPECTS

BACHELOR'S STUDY PROGRAMMES

AUTOMATION

(Field of study 5.2.14 Automation)

The graduate has acquired education in the field of automation and process control with the support of information and communication technologies. He/she has also practical experience in application of safety critical control and communication systems performed mainly based on PLC and industrial networks. He/she will successfully apply in the operation of control and information systems at the process and operative level. 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.

AUTOTRONICS

(Field of study 5.2.9 Electrical Engineering)

The graduate has acquired basic and general knowledge required in wide spectrum of electrical proficiency especially in areas of automobile electronics, hybrid vehicles and electromobility. The gained knowledge is needed for the second degree study programmes in this study programme or affinitive ones. Even if the graduate does not continue in the next level of the university studies, he/she will gain required wide professional profile and he/she is able to adapt in different technical or other businesses. The graduates of Autotronics study programme should be professionals who are able to identify various electronic faults in cars. They can successfully apply mainly in car services and repair workshops, car selling shops and in education institutions.

Software skills: C language, C++, MATLAB, Simulink, CodeWarrior, CodeComposer, Asembler, AVR Studio, Vissim, PLECS.

BIOMEDICAL ENGINEERING

(Field of study 5.2.47 Biomedical Engineering)

The graduate has acquired knowledge in the subjects of a theoretical and technical basis, as well as in a theoretical basis of medical disciplines with emphasis on the structure and functioning of biological objects, biochemical, physiological and pathophysiological processes. He/she has gained knowledge of medical technique and its applications, modern tools of biomedicine, principles of their activities, conditions for operation and their safe utilisation for diagnostic and treatment purposes. He/she is able to evaluate functionality of technical and computer aided equipment under given conditions of a health care facility or other operations and laboratories and at the same time able to lead qualified communication with the health care staff. He/she will successfully apply as an expert in medical and biological laboratories, in the operation of biomedical technique, in business and service organisations.

Software skills: C language, MATLAB, EAGLE.

ELECTRICAL ENGINEERING

(Field of study 5.2.9 Electrical Engineering)

The graduate has acquired knowledge of the subjects of theoretical base applied in the fields of power electronics, utilisation of applied microprocessor technique and programming, electric drives, electrical traction, electric power systems and mechatronics. He/she has gained knowledge in the field of quality management and reliability in a production company,

marketing and trade, electrical standards, law and legal regulations related to the field of study. Graduates may further specialise in the field of automobile electrical engineering, electrical traction, electric drives, electric power systems, and power electronic systems and mechatronics systems. Graduates have obtained theoretical knowledge and practical experience in order to acquire the principles, installations, operations, functions, service and repairs of electrical products, devices and equipment in compliance with international standards. He/she will successfully apply in all fields of power electrical engineering, in the field of mechatronics, robotics, applied microprocessor technique, electronics, optoelectronics, power electronics, computer design and construction in organisations of administrative, production, operation or repair character. 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-PSPIICE, PLECS.

DIGITAL TECHNOLOGIES

(Field of study 5.2.15 Telecommunications)

The graduate has acquired knowledge from the basic disciplines in the field oriented to general professional knowledge in the area of digital technologies, electronics, optoelectronics, communication systems, networks and services, transmission media to be connected with obtaining practical experience in the field of digital technologies, mainly information processing, transmission and communication systems. He/she has gained experience and skills in the field of digital system operation. Apart from that, he/she has acquired basic legal, economic and managerial knowledge to be utilised in the field of digital system services, digital security and language skills including specific terminology. The graduate will apply successfully as a technician, technologist or manager of technician team, administrator of digital devices and systems.

Software skills: C language, C++, PHP, JavaScript, MySQL, Flash animations, Code Blocks, LabView, PHPMyAdmin, MySQLWorkbench, ILEAD GIF Animator, XARA X, ADOBE Imagereak, Adobe After Effects, AVI 3d studio, DiagramDesigner, HTML Kit.

MULTIMEDIA TECHNOLOGIES

(Field of study 5.2.15 Telecommunications)

The graduate has acquired knowledge in acquisition, processing and presentation of digital signal at an adequate technical, aesthetical, ethical and art levels. The synergy of technical and art education will make the graduate a specialist in creating multimedia presentations. The graduate has gained knowledge and practical experience in working with the screen and the sound element of multimedia that predetermines him/her for work in organisations focused on information technologies, advertising and counselling activities, in public administration institutions, in studios producing multimedia products.

Software skills: C language, C++, MATLAB, Java, JSP, Blender, Cinema 4D, Adobe Premiere, Adobe Audition, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Protools, HW, SQL, PSpice, Microsim, Corel Draw, QuarkxPress, LaTeX.

TELECOMMUNICATIONS

(Field of study 5.2.15 Telecommunications)

The graduate has acquired necessary theoretical and specific knowledge, information on technologies and methods in the field of transmission and processing of all information types, on the structure and operation of respective equipment and systems of fixed and mobile networks. He/she has knowledge in information technology utilisation in the given field, as well as knowledge in economics, management, psychology and legal regulations. He/she may successfully operate in companies focused on the area of communication and information technologies as an executive and managing employee.

Software skills: C language, C++, MATLAB, Java, JSP, Blender, 3dMax, Cinema 4D, Audition, Protools, Premierepro, HW, Adobe InDesign, SQL, PSpice, Microsim, Adobe Illustrator, Corel Draw, QuarkxPress, LaTeX, Blender, 3dMax, Cinema 4D, Photoshop, MS Office, MATLAB, SIMULINK, from SPICE family – simulation programs focused on analyses and syntheses of electronic circuits, EAGLE, LabView, VPIphotonics.



ADDITIONAL EDUCATIONAL ACTIVITIES

In addition to education in a selected study programme, the Faculty of Electrical Engineering and Information Technologies enables its students to obtain a QUALITY MANAGER certificate which allows them to significantly extend their application in practice, especially in production-oriented companies. During the studies students complete professional experience, thereby directly obtain practical experience in quality management.

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 asset for job seekers in companies dealing with automation, measurement, testing, industrial production or computer vision in LabVIEW.

The Cisco Academy also operates at the faculty where students can take advantage of free preparation for obtaining Cisco Certified Network Associate industrial certificates. Our faculty, together with its industrial partners, offers students free tuition of professional English and German, enabling them to expand their language competence in the area they study.