UNIVERSITY OF ŽILINA
Faculty of Electrical Engineering and Information Technology

DOCTORAL DEGREE STUDY

CONTACT

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ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2027/2028

DOCTORAL DEGREE STUDY PROGRAMMES	
FULL-TIME STUDY LENGTH OF STUDY 3 YEARS	**PART-TIME STUDY**** LENGTH OF STUDY 4 YEARS
Biomedical Engineering*	Biomedical Engineering *
Electro-technologies and Materials*	Electro-technologies and Materials*
Process Control*	Process Control*
Power Electrical Engineering*	Power Electrical Engineering*
Telecommunications*	Telecommunications*

** a study programme also accredited in English; tuition fees apply for this programme*
*** tuition fee for part-time study programmes is € 1, 000 per academic year*

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

EXPECTED NUMBER OF ACCEPTED APPLICANTS TO THE FIRST YEAR

DOCTORAL DEGREE STUDY		
STUDY PROGRAMME / FIELD OF STUDY	**PLANNED CAPACITY**	
	FULL-TIME	**PART-TIME**
Biomedical Engineering / Electrical Engineering	3	2
Electro-technologies and Materials / Electrical Engineering	5	2
Process Control / Cybernetics	3	2
Power Electrical Engineering / Electrical Engineering	15	2
Telecommunications / Informatics	6	2
TOTAL	32	10

TERMS AND CONDITIONS OF ADMISSION

Basic condition of admission

The basic condition for admission to the doctoral degree study (study programme of the third degree) is the full completion of the second degree of higher education (Higher Education Act No. 300/2025 Coll., as amended; hereinafter referred to as the 'Higher Education Act'). 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 second 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

The admission procedure of the applicant begins with the delivery of the application form for the third degree of study to the Faculty of Electrical Engineering and Information Technology UNIZA. Applicant for the doctoral degree study applies for the listed topics. The selection of applicants will be performed in the form of an entrance examination. Applicants will be invited in writing.

The following will be considered at the entrance examination:

- the results of the previous study,
- language competence,
- current publication activity of the applicant,
- other activities of the applicant in the given field (Student Scientific Activity, practice, professional internships, etc.),
- prerequisites for independent scientific work of the applicant in the issues of the study programme in the form of a debate on a selected topic.

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 in 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). After this deadline, the certificate/document will not be accepted. It is possible to complete a language course at UNIZA, with the relevant certificate of completion, before the admissions process (further information is available on the UNIZA website: https://ucv.uniza.sk/kurzy-slovensky-jazyk/).

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 programme and a specific course listed in the study programme (in both Slovak or English, both full-time and part-time form of study). Part-time form of study in Slovak, as well as study in English in both forms of study are subject to tuition fee per the UNIZA Directive No. 243 (https://uniza.sk/index.php/studenti/prakticke-informacie/skolne-a-poplatky)
If the applicant is interested in more than one topic in study programmes, it is necessary to submit individual application forms for each topic in study programmes separately, whereas the payment of the respective admission fee is required.
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/.
Concerning application form, it is necessary to enclose all the required documents along with the proof of payment of the admission procedure fee and send it electronically or by post to the address of the Faculty of Electrical Engineering and Information Technology UNIZA **within the stipulated deadlines**.
An incomplete application form or application form sent after the deadline will not be accepted.
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 doctoral degree application form:

- curriculum vitae,
- copies of documents on completion of the second degree of education (university diploma, state examination certificate and diploma supplement) – this does not apply to the graduates of the Faculty of Electrical Engineering and Information Technology UNIZA,
- a list of published papers or other professional activity,
- proof of payment of the admission fee.

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:	10333 – doktorandské 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 – are set 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

Deadline for submitting the application form	Entrance exams
until 30 May 2027	14 June 2027

ACCOMMODATION

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. **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

Full time students of the doctoral degree study programmes are granted a scholarship pursuant to the Higher Education Act.

GRADUATE PROSPECTS

DOCTORAL DEGREE STUDY PROGRAMMES

ELECTRO-TECHNOLOGIES AND MATERIALS
(Field of study Electrical and Electronics Engineering)
Doctoral degree study in the study programme Biomedical Engineering is intended for graduates of the second level of university study, inclined towards original solutions to engineering and scientific problems in the field of biomedicine and its applications. To solve these tasks, the doctoral student uses the latest knowledge from modern analytical and numerical methods, mathematical and physical modelling methods, informatics, measurement of electrical and non-electrical quantities, electronics, interdisciplinary methodologies, and biomedical applications, as well as knowledge from other fields. The prerequisite for successful completion of the study is the ability of the doctoral student to think abstractly and his/her ability to apply and implement the acquired knowledge in solving technical problems. The doctoral student will learn to correctly characterise and understand physical phenomena and experimental knowledge about these phenomena, to search for adequate models and to implement new applications in the specific disciplines mentioned above, in science, research and practice. Doctoral degree study will enable the doctoral student to acquire comprehensive theoretical knowledge, experimental skills, and practical experience, as well as to master scientific research methodology, and will prepare him/her for independent scientific work.

ELECTRO-TECHNOLOGIES AND MATERIALS
(Field of study 2675 Electrical Engineering)
The graduate of the doctoral degree study programme Electro-technologies and Materials masters scientific methods for the design and preparation of innovative materials and structures. He/she masters scientific advances in processing technology, photonic structures, electro-acoustic structures, solid state and electronic systems, diagnostics and physical property modelling. The scientific knowledge acquired enables the graduate to apply knowledge in a wide range of manufacturing technologies in electronics, photonics, or materials. The graduate is able to independently operate scientifically and implement new knowledge in the field of technology. He/she has the skills to lead scientific and engineering teams designed to provide technical and informational assignments in solving complex tasks not only in industry, but also in science and research.
After graduation, the graduate is able to establish and implement innovative technological procedures for the production and preparation of electrical engineering elements, structures, systems and equipment, while being able to think critically and creatively for the design and implementation of innovations.

PROCESS CONTROL
(Field of study 2647 Cybernetics)
The doctoral degree study in the study programme Process Control is intended for graduates of the second degree of university study (Engineer/Master of Science or Art) who tend to have an original solution to engineering and scientific problems in the field of management and control of transport and technological processes. The aim of the doctoral degree study is to educate such an expert who will not only have comprehensive knowledge but will be able to enrich science and knowledge in the field of process control. To solve these tasks, the doctoral student uses the latest knowledge of modern analytical and numerical methods, methods of mathematical and physical modelling, informatics, measurement of electric

and non-electric variables, microelectronics, electrical power engineering, automatic and discrete control up to the level of artificial intelligence, including the implementation of control by appropriate processors, as well as knowledge from other fields. A prerequisite for successful completion of the doctoral degree study is the ability of the doctoral student to think abstractly and his/her ability to apply and implement acquired knowledge in solving technical problems. The graduate of the doctoral degree study in the study programme Process Control acquired knowledge based on the current state of scientific knowledge and by his/her own creative activity he/she will contribute to the development of this knowledge as well as to new findings in this field. He/she has a broad expertise in several areas of the field, which serves as a basis for conducting research, development and creation of new knowledge in traditional areas of the field such as: methods of modelling and process control, design of robotic and mechatronic systems control, new software and communication systems for control of complex systems. The student is capable of critical analysis, abstraction, evaluation and generalization of given problems and synthesis of new and complex concepts.

POWER ELECTRICAL ENGINEERING

(Field of study 2675 Electrical Engineering)

The doctoral degree study in the study programme Power Electrical Engineering is intended for graduates of the second degree of university study (Engineer/Master of Science or Art) who tend to have an original solution to engineering and scientific problems in the field of heavy current electrical engineering, i.e. electric drives, power electronics, power systems, electric traction, electric machines and instruments as well as traction electrical power engineering. To solve these tasks, the doctoral student uses the latest knowledge of modern analytical and numerical methods, methods of mathematical and physical modelling, informatics, measurement of electric and non-electric variables, microelectronics, electrical power engineering, automatic and discrete control up to the level of artificial intelligence, including the implementation of control by appropriate processors, as well as knowledge from other fields. A prerequisite for successful completion of the doctoral degree study is the ability of the doctoral student to think abstractly and his/her ability to apply and implement acquired knowledge in solving technical problems. The doctoral student will learn to correctly characterize and understand physical phenomena and experimental knowledge of these phenomena, to look for adequate models and to implement new applications in the above-mentioned specific disciplines, in science, research and practice. The doctoral degree study will enable the doctoral student to acquire comprehensive theoretical knowledge, experimental skills and practical experience, as well as to master the methodology of scientific work and prepare him/ her for independent scientific work. The graduate of the doctoral degree study in the study programme High-voltage electrical engineering acquired knowledge based on the current state of scientific knowledge and by his/her own creative activity he/she will contribute to the development of this knowledge as well as to new findings in this field.

TELECOMMUNICATIONS

(Field of study 2508 Informatics)

The graduate of the third degree study programme Telecommunications acquired deep theoretical and methodological knowledge and practical experience in key areas of information and communication technologies and multimedia at the current state of research in the world. He/she acquired the principles of independent and team scientific work, scientific research, scientific formulation of problems, solution of complex scientific problems and presentation of scientific results. He/she is able to analyse and solve complex and non-standard tasks in the field of information and communication technologies and multimedia and provide original, new solutions. The graduate is able to use the acquired knowledge to evaluate and justify the suitability of the use of individual methods for solving research tasks in the field of metallic, optical and radio communication systems, using the analysis of different types of signals and the implementation of various machine learning methods. He/she can creatively apply acquired knowledge in practice. He/she will find professional application in various fields of science, research, industry and services in the public as well as private sectors. In addition to the aforementioned theoretical knowledge, the graduate of the third degree of the study programme Telecommunications has acquired additional knowledge, abilities and skills and is able to lead smaller and larger teams of scientific, research and development workers, to lead large projects and to bear responsibility for complex solutions to scientific and research problems. He/she is able to follow the latest scientific and research trends in the field of information and communication technologies and multimedia and supplement and update his/her knowledge through lifelong learning process. The graduate has mastered the principles of managerial work, designing an experiment with a timetable, leading and controlling team members, he/she is able to communicate and cooperate with managers of scientific projects and specialists from other professions, is able to apply legal, social, moral, ethical, economic and environmental aspects of his/her profession in his/her work.