UNIVERSITY OF ŽILINA

Description of the study programme
Source: SAAVŠ

Name of the higher education institution: University of Žilina
Address of the higher education institution: Process Control
Identification number of the higher education institution: 00397 563
Name of the faculty: Faculty of Electrical Engineering and Information Technology
Address of the faculty: Univerzitná 8215/1, 010 26 Žilina

Institution body for approving the study programme:
Date of the study programme approval or the study programme modification: 31.8.2022
Date of the latest change[1] in the study programme description: 13.3.2026
Reference to the results of the latest periodic review of the study programme by the institution:
Reference to the assessment report of the application for accreditation of the study programme under § 30 of Act no. 269/2018 Coll.:

1.	**Basic information about the study programme**			
a	**Name of the study program**	**Process Control**	**Number according to the register of study programmes**	**103525**
b	**Degree of higher education**	**3rd**	**ISCED-F education degree code**	**864**
c	**Place(s) of delivery of the study programme**	Univerzitná 8215/1, 010 26 Žilina		
d	**Name of the field / Combination of two fields of study**	Cybernetics	**Number of the field of study**	2647V00
			ISCED-F codes of the field/fields	0714, 061
e	**Type of the study programme**	Academically oriented		
f	**Awarded academic degree**	PhD.		
g	**Form of study**	part-time		
h	**Cooperating institutions and the range of study obligations the student fulfils at each of the given institutions**	-		
i	**Language or languages in which the study programme is delivered**	Slovak		
j	**Standard length of the study expressed in academic years**	4 years		
k	**Capacity of the study programme (planned number of students)**	As stated in the documents „Principles and Rules of the Admission Procedure for FEIT" available at: https://feit.uniza.sk/studenti/doktorandske-studium/ and in the "Annual Reports of FEIT" available at:		

[1] *If the change is not a modification of the study programme according to § 30 of Act no. 269/2018 Coll.*

		https://feit.uniza.sk/fakulta/uradna-tabula/
	Actual number of applicants	As stated in the documents "Report on the Evaluation of Education Quality at FEIT" for individual academic years: *https://www.uniza.sk/index.php/component/content/article/4273-sprava-o-hodnoteni-kvality-vzdelavania-na-urovni-fakulty-feit?catid=2:uncategorised&Itemid=101* and and in the "Annual Reports of FEIT" available at: https://feit.uniza.sk/fakulta/uradna-tabula/
	Actual number of applicants and students	As stated in the documents "Report on the Evaluation of Education Quality at FEIT" for individual academic years *https://www.uniza.sk/index.php/component/content/article/4273-sprava-o-hodnoteni-kvality-vzdelavania-na-urovni-fakulty-feit?catid=2:uncategorised&Itemid=101* and in the "Annual Reports of FEIT" available at: https://feit.uniza.sk/fakulta/uradna-tabula/

2.	**Graduate profile and learning objectives**	
a	**Learning objectives of the study programme such as student's abilities at the time of completion of the programme and the main learning outcomes**	**Graduate Profile:** A graduate of the doctoral study programme Process Control in the field of Cybernetics is a qualified expert with unique knowledge and skills reflecting current and emerging trends in process control, automation, informatization, and robotics. An added value of this programme is the extension of knowledge into the area of functional and technical safety of control systems, including fundamentals of cybersecurity. According to the national framework "System of Study Fields of the Slovak Republic and Core Knowledge Topics of the Study Field 19 – Cybernetics", pp. 66-68, https://www.zakonypreludi.sk/disk/zz/file/2019/2019c000z0244p001.pdf): The graduate possesses broad expertise across multiple areas of the field, forming a basis for research, development, and creation of new knowledge in traditional domains such as methods of modelling and control of processes, design of control for robotic and mechatronic systems, development of new software and communication systems for complex system control. The graduate has interdisciplinary methodological knowledge enabling specialization in overlapping areas such as artificial intelligence, cognition, adaptation, communication, connectivity, biosystems, and social systems; solves research problems in specialized industrial and application domains aligned with priorities of basic and applied research; demonstrates systematic understanding of the study field and has mastered research methods corresponding to the current state of knowledge in cybernetics; is capable of critical analysis, abstraction, evaluation, generalization, and synthesis of new and complex concepts; is able to design, conduct, implement, and adjust substantial parts of research with scientific integrity; applies findings from theoretical analysis and scientific research to problem-solving; contributes original research expanding the boundaries of scientific knowledge, with results suitable for peer-reviewed publication at national or international level; communicates effectively with colleagues, the scientific community, and the general public, and can independently present research results domestically and abroad; considers social, scientific, and ethical aspects when formulating research objectives and interpreting results; is

capable of defining research directions and coordinating a team in the relevant scientific field; supports technological, social, or cultural progress in a knowledge-based society.

Educational Objectives (Study Programme Aims):
OBJECTIVE 1: Acquisition of general and cross-disciplinary knowledge in Cybernetics.
The student gains professional and methodological knowledge serving as a basis for innovation and originality in practice or research, necessary for designing research, development, or professional advancement.

Learning outcomes V1–V10 include knowledge of:

- V01: properties of cybernetic systems
- V02: analysis of user requirements, conditions, environments
- V03: principles, methods, and procedures of cybernetic system design
- V04: specialized software tools, information and operational technologies
- V05: basic concepts and standards in cybernetics and selected application areas
- V06: methods of creating technical documentation
- V07: development trends in ICT and cybernetics
- V08: legal regulations and concepts in copyright and ethics
- V09: principles of leading and participating in project teams
- V10: occupational health and safety principles and risk awareness

	ZVPRP	RAP	IRS	ARBRP	RAS	PP	DPO
V01	X	X	X	X	X	X	X
V02	X	X	X	X	X	X	X
V03	X	X	X	X	X	X	X
V04	X	X	X	X	X	X	X
V05	X	X	X	X	X	X	X
V06	X	X		X		X	X
V07		X	X	X	X	X	X
V08	X					X	X
V09	X						
V10	X	X	X	X	X		

OBJECTIVE 2: Acquisition of cognitive and practical skills
The student develops skills necessary for formulating new hypotheses, judgments, and strategies; evaluating theories and innovations; applying findings from theoretical analysis and scientific research; and designing, verifying, and implementing new research and work procedures.

Skills Z1–Z13 include the ability to:

- Z01: analyse properties of controlled processes
- Z02: analyse and design solutions ensuring safety and reliability of cybernetic systems
- Z03: design concepts, methodologies, and development forecasts in cybernetics
- Z04: develop and integrate control systems, including operational optimization
- Z05: analyse and apply cybernetic systems in selected application areas
- Z06: monitor development trends in cybernetics through study and evaluation of scientific literature

- Z07: prepare technical studies and analyses of cybernetic system control problems
- Z08: manage internal/external project activities
- Z09: supervise creation of technical documentation
- Z10: prepare analyses for technical project development
- Z11: comply with occupational safety and hygiene regulations

	ZVPRP	RAP	IRS	ARBRP	RAS	PP	DPO
Z01	X	X	X	X	X	X	X
Z02		X		X	X	X	X
Z03	X	X				X	X
Z04		X	X	X	X	X	X
Z05		X	X	X	X	X	X
Z06	X	X	X	X	X	X	X
Z07	X	X	X	X	X	X	X
Z08		X					
Z09		X					
Z10	X	X	X	X	X	X	X
Z11	X	X	X	X	X		

OBJECTIVE 3: Acquisition of key competencies
The student develops competencies in critical, independent, and analytical thinking under unpredictable and changing conditions; the ability to consider social, scientific, and ethical aspects; the ability to present research results; leadership responsibility; and planning of personal and societal development.

Competencies K1–K12 include:

- K01: digital and information literacy
- K02: problem analysis and solving, including formulation of conclusions and hypotheses
- K03: technical literacy
- K04: work organization and project management
- K05: mathematical literacy
- K06: creativity, adaptability, flexibility, self-education
- K07: independent decision-making
- K08: cultivated verbal communication and negotiation skills
- K09: professional written communication
- K10: ability to communicate in a world language
- K11: presentation skills
- K12: teamwork ability

	ZVPRP	RAP	IRS	ARBRP	RAS	PP	DPO
K01	X	X	X	X	X	X	X
K02	X	X	X	X	X	X	X
K03		X				X	X
K04	X	X				X	X
K05	X	X	X	X	X	X	X
K06	X	X	X	X	X	X	X
K07	X	X	X	X	X	X	X
K08	X	X	X	X	X	X	X
K09	X	X	X	X	X	X	X
K10	X	X	X	X	X	X	X
K11	X	X	X	X	X	X	X
K12	X	X					

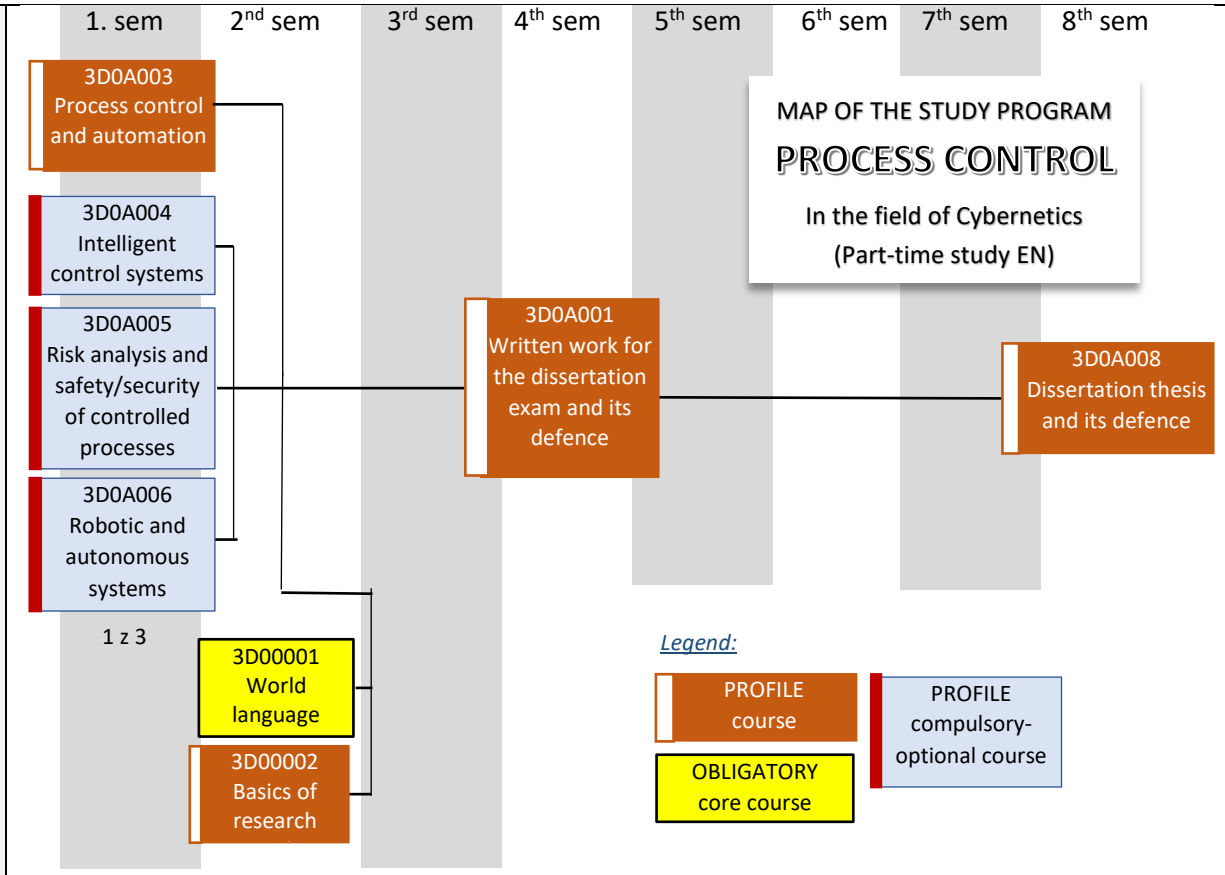
b	**Indicated professions for which the graduate is prepared at the time of completion and the potential of the study programme from the point of view of graduate's employability**	The primary target profile of the graduate—reflecting the employment of previous graduates and the current needs of industrial partners—was formulated based on discussions with several industry representatives (Continental Matador Truck Tires s.r.o., Púchov; AŽD Praha, s.r.o. – Žilina plant; Aliga, s.r.o., Martin; Siemens Mobility, s.r.o., Bratislava). The resulting profile is as follows: **System Architect for the Development of Cybernetic Systems** This professional is responsible for research, development, and overall implementation of innovative solutions in the field of cybernetic systems. Their responsibilities include: • designing the overall system architecture and applied technologies, • coordinating the development of cyber-physical systems in accordance with functional, technical, and information security requirements, • monitoring new trends in process control, automation, informatization, and robotics, and implementing them in practice. . Since this occupation was not included in the catalogue of indicated professions on the portal https://www.kariernabrana.sk, a request for its inclusion was submitted on 13 March 2026 to the address akreditacie@alianciasr.sk. The request was accompanied by a written supporting statement prepared already in 2022 by the following entity: • Ing. Ladislav Rosina, PhD.; Managing Director of the Passenger Tires Plant; Continental Matador Rubber, s.r.o.; Continental Matador Truck Tires s.r.o.; T. Vansovej 1054, 020 01 Púchov, Slovak Republic; Tel.: +421 42 461 3060; Mobile: +421 904 717 060; E-mail: ladislav.rosina@conti.sk; http://www.continental-corporation.com A list of several other indicated professions includes: • Robotics Specialist • Cybersecurity Specialist • Research and Development Manager in Information Technologies and Telecommunications • University Assistant • Lecturer at a Higher Education Institution The study programme does not prepare graduates for a regulated profession requiring an official statement on compliance of the acquired qualification with sector-specific requirements.
c	**Relevant external stakeholders who have provided the statement or a favourable opinion on the compliance of the acquired qualification with the sector-specific requirements for the profession**	The study programme does not prepare graduates for a regulated profession requiring an official statement on the compliance of the acquired qualification with sector-specific requirements.

3.	**Employability**	
a	**Evaluation of the study programme graduates employability**	Thanks to the broad and interdisciplinary expertise acquired in this doctoral study programme, graduates find employment in research, design, management, construction, optimisation, operation, and innovation of industrial enterprises across all areas of power

		engineering and electrical energy systems. They are also employed in design and research institutes, as well as in other organisations with administrative, production, operational, or maintenance-oriented activities.
b	**Successful graduates of the study programme**	In the past six years, no student has defended their PhD thesis in the external (part-time) form of study. Therefore, the employability of graduates can be demonstrated only through full-time graduates (see a different file). The next graduates of the external PhD program are expected in 2027 (studying in Slovak) and 2029 (studying in English). Graduates of the doctoral study programme Process Control work as specialised research and development professionals in companies, institutes, and research centres where the highest level of critical and constructive thinking, proactive problem-solving, and responsibility for the quality and impact of their work is required.
c	**Evaluation of the study programme quality by employers (feedback)**	The survey among employers is part of the study programme's quality monitoring, and it is planned to be carried out at three-year intervals.

4.	**Structure and content of the study programme** [2]
	Rules for the design of study plans within the study programme
a	The rules for creating, modifying, approving, and cancelling study programmes are defined in *Directive No. 204 — Rules for the Creation, Modification, Approval, and Cancellation of Study Programmes at UNIZA*, available at: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2
b	**Recommended study plans for individual study paths**

[2] *Selected characteristics of the content of the study programme can be stated directly in the Course information sheets or supplemented by the information of the Course information sheets.*



c, e

The study programme, in the structure of compulsory, compulsory optional and optional courses Profile courses of the relevant study path (specialization) within the study programme

The study plan for this study programme is available in the e-learning system based on the selection of faculty, study form, and programme name:
https://vzdelavanie.uniza.sk/vzdelavanie/plany.php

d

Number of credits, the achievement of which is a condition for proper completion of studies

180

Other requirements that the student must meet within the study programme and for its proper completion, including the requirements for state examinations, rules for re-study and rules for the extension, interruption of study

Conditions in the course of study process:
The conditions for continuous and final assessment in individual courses are specified in the course information sheets, available after selecting the faculty, study form, and programme name at:
https://vzdelavanie.uniza.sk/vzdelavanie/plany.php

Doctoral studies are carried out according to individual study plans, whereby the set of knowledge, skills, and competencies is aligned with the specific topic of the dissertation thesis. The dissertation topic is announced in connection with a specific research project in which the doctoral student is involved, with the aim of developing their ability to work as part of a team. The individual study plan is prepared by the supervisor in cooperation with the doctoral student according to the needs of the dissertation thesis and is submitted for approval to the Chair of the Process Control working group within the study field of Cybernetics, which is established in accordance with the university's internal regulations. The individual study plan consists of a study part and a scientific part, and its completion—culminating in the defence of the dissertation thesis—requires the continuous acquisition of credits for predefined and quantitatively expressed criteria, which are specified in the publicly available Guide for Doctoral Studies (https://feit.uniza.sk/doktorandske-studium-sprievodca/).

The study part represents 50 credits of the overall study plan. It focuses on acquiring deep theoretical knowledge in the field of process control and on mastering the methodological framework supported by selected mathematical, physical, and specialised disciplines. It consists of two compulsory profile courses, one compulsory core course, one compulsory elective course, and the compulsory course Written Thesis for the Dissertation Examination and its Defence. The compulsory profile courses are Process Control and Automation and Fundamentals of Scientific Work, while the compulsory core course is World Language. The selection of the compulsory elective course depends on the topic of the dissertation thesis. Each course in the study part is assigned 10 credits. All courses in the study part are part of the state examination.
The scientific part represents at least 130 credits of the study plan. It is carried out through Dissertation Projects I–IV and through individual and team scientific and research activities, including the preparation and defence of the dissertation thesis. Dissertation Projects I–IV represent coherent stages of the dissertation thesis, and each is assigned 10 credits. The evaluated activities within individual and team scientific work include publications in journals and conference proceedings, chapters in monographs or university textbooks, intellectual property protection (patent, utility model), citations registered in the SCI citation index, and active presentation of results at conferences. The allocation of credits for individual activities within scientific work is prescribed in the Guide for Doctoral Studies. The study concludes with the defence of the dissertation thesis, which is part of the state examination. After the dissertation thesis is completed, accepted, and successfully defended, the doctoral student receives 30 credits (for the dissertation thesis and its defence).

The specific conditions during the course of study include continuous and final assessment of individual courses, with weighting specified in the course information sheets. These are available after selecting the faculty, study form, and study programme at: https://vzdelavanie.uniza.sk/vzdelavanie/plany.php (vzdelavanie.uniza.sk). The student must also meet the minimum credit requirements for progression to the next year of study, in accordance with the regulations mentioned above. The basic unit of study is the academic year, during which the student is expected to obtain an average of 60 credits.

Full-time doctoral studies are divided into the following years:

- 1st year — the student must obtain at least 40 credits,
- 2nd year — the student must obtain at least 60 credits (or a minimum of 100 credits combined for the 1st and 2nd year),
- 3rd year — the student must obtain enough credits to reach a total of at least 180 credits for the entire study programme.

A prerequisite for progression to the next stage of study is the acquisition of the prescribed number of credits in the given academic year. If this requirement is not met, the student will be excluded from studies. The recommended study plan is designed so that by following it, the student fulfils all conditions for completing the programme within the standard length of study.

The rules for extending the duration of studies follow the provisions of the Higher Education Act.

Additional conditions are specified in:

Directive No. 110 — Study Regulations for the 3rd Level of Higher Education at the University of Žilina,
Directive No. 216 — Quality Assurance of Doctoral Studies at UNIZA,
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2
and other regulations listed at:
https://feit.uniza.sk/oznamy-pre-doktorandov/

e

For individual study plans, the institution states the requirements for completing the individual parts of the study programme and the student's progress within the study programme in the given structure

	Proper completion of studies	Part of studies			
		1Y	2Y	3Y	4Y
number of credits for compulsory courses required for proper completion of studies/completion of a part of studies	40	20	20	0	0
number of credits for compulsory optional courses required for the proper completion of studies/completion of a part of studies,	10	10	0	0	0
number of credits for optional courses required for the proper completion of studies/completion of a part of studies	0	0	0	0	0

	number of credits required for the completion of studies/completion of a part of the studies for the common foundations and for the relevant specialization, in the case of a teaching combination study programme or a translation combination study programme	0	0	0	0	0
	number of credits for the final thesis and the defense of the final thesis required for the proper completion of studies	30	0	0	0	30
	number of credits for professional practice required for the proper completion of studies/completion of a part of studies	0	0	0	0	0
	number of credits required for the proper completion of studies/completion of a part of the studies for project work with the indication of relevant courses in engineering study programmes	40	0	0	20	20
	number of credits required for the proper completion of studies/completion of a part of the studies for artistic performances in addition to the final thesis in art study programmes	0	0	0	0	0

Rules for the verification of learning outcomes, students' assessment and the possibilities of appealing against the assessment

At the university level, the processes, procedures, and structures are defined by Directive No. 110 – Study Regulations for the 3rd Level of Higher Education at the University of Žilina, and Directive No. 216 – Quality Assurance of Doctoral Studies at UNIZA: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

At the faculty level, these are the documents:
Dean's Decision on the Organisation and Administrative Provision of the 3rd Level of Study, and
https://feit.uniza.sk/oznamy-pre-doktorandov/
and
Guide for Doctoral Studies at FEIT.
https://feit.uniza.sk/doktorandske-studium-sprievodca/

f **Conditions for the recognition of studies or a part of studies**

At the university level, the processes, procedures, and structures related to the recognition of studies or parts of studies are defined by Directive No. 110 – Study Regulations for the 3rd Level of Higher Education at the University of Žilina, and Directive No. 216 – Quality Assurance of Doctoral Studies at UNIZA. In the case of international mobilities and internships, the processes, procedures, and structures governing the conditions for the recognition of studies are defined by Directive No. 219 – Mobility of Students and Staff of the University of Žilina Abroad.
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

At the faculty level, these are the documents:
Dean's Decision on the Organisation and Administrative Provision of the 3rd Level of Study, and
https://feit.uniza.sk/oznamy-pre-doktorandov/
and
Guide for Doctoral Studies at FEIT.
https://feit.uniza.sk/doktorandske-studium-sprievodca/

g **Topics of final theses of the study programme (or a link to the list)**

In the past six years, no final theses have been defended.

h ; 7.e-f	**Rules for the assignment, processing, opposition, defence and evaluation of final theses in the study programme; list of the supervisors of final theses with the assignment to topics (indicating the contact details)**

At the university level, the processes, procedures, and structures are defined by Directive No. 215 – Directive on Final, Rigorous, and Habilitation Theses at the University of Žilina, Directive No. 110 – Study Regulations for the Third Level of Higher Education at the University of Žilina, and Directive No. 216 – Quality Assurance of Doctoral Studies at UNIZA..
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

At the faculty level, the current Dean's Decision on the organisation and administrative provision of the third level of study at FEIT UNIZA for the given academic year applies, together with specific information for students available at the faculty's doctoral study webpages:
https://feit.uniza.sk/oznamy-pre-doktorandov/ a https://feit.uniza.sk/studenti/doktorandske-studium/

Proposals for dissertation topics, submitted by supervisors and approved by the chair of the field committee, are authorised by the Dean, who publishes them no later than two months before the final deadline for submitting applications for doctoral studies. Each published topic includes the name of the study programme, the supervisor's name, the form of study (full-time or part-time), the application deadline, and the date of the admission procedure. The dissertation topic proposals are published on the official notice board of the faculty's website, which also provides information on the application procedure and deadlines. The date of publication of dissertation topics is determined by the academic calendar of the supervising department.
The entrance examination is conducted before an admissions committee consisting of at least four members. The committee is composed of its chair and at least two members appointed by the Dean. The supervisor of the announced dissertation topic serves as an additional member of the committee. The admissions committee evaluates the result of the entrance examination in a closed session, concluding with either "passed" or "failed." If multiple applicants apply for the same topic, the committee ranks them according to their performance in the entrance examination. When determining the ranking, the committee also considers the scope and quality of the applicant's previous scholarly publications and other professional activities. Based on the results of the entrance examination, the Dean decides on the applicant's admission within 30 days from the date of the examination.
During the implementation of the study programme, particular attention is paid to evaluating the fulfilment of the doctoral student's individual study plan. The evaluation is carried out once per year at the end of the academic year by the supervisor and is subsequently approved by the programme guarantor and the Dean. The decisive milestones are the dissertation examination and the defence of the dissertation thesis. A doctoral student who has not fulfilled all obligations arising from the individual study plan and has not obtained the required number of credits may not register for the dissertation examination nor request permission to defend the dissertation thesis.
By the deadline set for thesis submission, the author must personally upload an electronic version of the thesis, identical to the bound version, in a single .pdf file with the option of conversion to plain text, into the Final Theses Registration System (EZP). Access to EZP is available at: http://kniznica.uniza.sk/ezp . UNIZA submits the electronic version of the thesis to the Central Register of Final, Rigorous, and Habilitation Theses (CRZP), where the originality of the submitted work is verified. The doctoral student submits a request to the Dean for permission to defend the dissertation thesis in accordance with the study schedule, provided that the required number of credits has been obtained. Along with the dissertation thesis, the corresponding reviews from opponents, supervisors, thesis advisors, reviewers, or other relevant persons are also submitted electronically, and these reviews are stored in the Central Register of Final, Rigorous, and Habilitation Theses together with the thesis for the duration of its archiving. Further details are governed by Directive No. 215 – Directive on Final, Rigorous, and Habilitation Theses at the University of Žilina.

After receiving all opponent reviews, the Dean forwards the doctoral student's request for permission to defend the dissertation thesis, together with all required documentation including the opponents' reports, to the chair of the defence committee. The chair then proposes to the Dean the date and venue of the dissertation defence. The dissertation thesis and its defence constitute a single course unit. The defence of the dissertation thesis is a state examination, and within the standard length of study, the doctoral student must complete it no later than in the final month of the last academic year of the standard study period. The defence is conducted in the form of a scientific discussion. The defence may take place only in the presence of at least two-thirds of the voting members of the defence committee, including at least two opponents, and at least one committee member must be from an institution outside UNIZA.
After the defence has concluded, a closed session of the committee is held, attended by all committee members, including the opponents and the supervisor. During this closed session, the committee evaluates the course and outcome of the defence, as well as the potential applicability of the dissertation results in practice. The committee and the opponents then decide, by secret ballot, whether to recommend awarding the academic degree to the doctoral candidate. Subsequently, the committee assigns a grade for the dissertation defence, using the grading scale specified in Directive No. 110 – Study Regulations for the Third Level of Higher Education at the University of Žilina. The chair of the defence committee submits the proposal to award or not award the academic degree, together with the minutes and the doctoral student's documentation, to the Dean. After positively assessing the committee's proposal regarding the award or non-award of the academic degree "doctor," the Dean forwards the documents confirming completion of studies to the Rector. The academic degree "doctor" ("philosophiae doctor," abbreviated "PhD.") is conferred by UNIZA with effect from the date of the successful dissertation defence.

https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

The documents certifying the completion of the doctoral study programme Proccss Control in the study field of Cybernetics are the university diploma, the state examination certificate, and the diploma supplement. These documents are usually presented to the doctoral graduate by the Dean at a ceremonial graduation event organised in accordance with the traditions and customs of UNIZA.

i

Opportunities and procedures for participation in student mobility

At the university level, the processes, procedures, and structures are defined by Directive No. 219 – Mobility of Students and Staff of the University of Žilina Abroad.
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

At the faculty level, student mobility within the doctoral study programme is strongly supported, and its implementation is recommended after the completion of the dissertation examination (approximately 18 months after the start of studies). By undertaking a mobility stay, the student may obtain additional credits in accordance with the rules specified in the Doctoral Study Guide at FEIT and in the Dean's Decision on the organisation and administrative provision of the third level of study at FEIT UNIZA.
https://feit.uniza.sk/doktorandske-studium-sprievodca/
https://feit.uniza.sk/studenti/studium-v-zahranici/
https://feit.uniza.sk/oznamy-pre-doktorandov/

At the faculty level, the coordinators and contact persons are:
Assoc. Prof. Ing. Peter Hockicko, PhD. (Person responsible for international mobility and international cooperation).
peter.hockickoniza.sk
Mgr. Silvia Pirníková, (Faculty Erasmus Administrator), silvia.pirnikova@uniza.sk

At the department and programme level, the departmental Erasmus+ coordinator available to students is:
Prof. Ing. Aleš Janota, PhD. /ales.janota@uniza.sk/.

Rules for adherence to academic ethics and rules for drawing consequences

At the university level, the processes, procedures, and structures are defined by Directive No. 207 – Code of Ethics of the University of Žilina, and Directive No. 201 – Disciplinary Code for Students of the University of Žilina..
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

At the faculty level, a Disciplinary Committee is established, which reviews specific submissions and student offences in accordance with Directive No. 201.
https://feit.uniza.sk/disciplinarna-komisia/

Procedures applicable to students with special needs

At the university level, the processes, procedures, and structures are defined by Directive No. 198 – Support for Applicants and Students with Specific Needs at the University of Žilina, and Directive No. 110 – Study Regulations for the Third Level of Higher Education at the University of Žilina.
https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

Detailed information for students is provided on the following webpage:
https://www.uniza.sk/index.php/studenti/vseobecne-informacie/studenti-so-specifickymi-potrebami
At the faculty level, the coordinators and contact persons are:
Assoc. Prof. Ing. Mariana Beňová, PhD. (Vice-Dean for Education), mariana.benova@uniza.sk
Bc. Emília Pekárová (Education Officer), emilia.pekarova@uniza.sk

Procedures for filing complaints and appeals by students

	At the university level, the processes, procedures, and structures are defined by Directive No. 110 – Study Regulations for the Third Level of Higher Education at the University of Žilina. https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 At the faculty level, support is provided through the published e-mail contacts of responsible persons, through students represented in the student section of the FEIT Academic Senate, and through the "We Will Advise You" link: https://feit.uniza.sk/studenti/poradime-vam/ or A message to the Dean: https://odkaz.feit.uniza.sk/

5.	**Course information sheets of the study programme** (*In the structure according to Decree no. 614/2002 Coll)*
	The course information sheets (ILPs) are available in the e-learning system after selecting the faculty, the form of study, and the specific study programme, under the name of the respective course: https://vzdelavanie.uniza.sk/vzdelavanie/plany.php

6.	**Current academic year plan and current schedule**	
	Current academic year plan	https://feit.uniza.sk/akademicky-kalendar-pre-doktorandov-feit/
	Current schedule	https://vzdelavanie.uniza.sk/vzdelavanie/rozvrh2.php

7.	**Persons responsible for the study programme**			
A	**A person responsible for the delivery, development, and quality of the study programme (indicating the position and contact details**			
	Name, surname, academic titles: **Prof. Ing. Aleš Janota, PhD.** Position: Professor, Department of Information and Safety Systems (KRIS), FEIT UNIZA Contact (e-mail, phone): ales.janota@uniza.sk; +421 41 513 3320			
b – c	**List of persons responsible for the profile courses of the study programme**			
	Name, Surname, titles on the position of the associated professor or professor	Profile course name		Additional information
	Assoc. Prof. Marián Hruboš, PhD. Prof. Ing. Aleš Janota, PhD. Assoc. Prof. Ing. Dušan Nemec, PhD. Prof. Ing. Rastislav Pirník, PhD. Assoc. Prof. Ing. Juraj Ždánsky, PhD.	Basics of research practice Process control and automation Intelligent control systems Robotic and autonomous systems Risk analysis and safety/security of controlled processes		3D0K002 3D0A003 3D0A004 3D0A006 3D0A005
D	**List of teachers of the study programme (including doctoral students) with the assignment to the course**			
	Name, Surname and titles	Profile course name	Organizational form provided by teacher	Additional information
	prof. Ing. Peter Brída, PhD.	Basics of research practice	lectures	3D0K002
	prof. Ing. Michal Frivaldský, PhD.	Basics of research practice	lectures	3D0K002
	Assoc. prof. Ing. Jozef Hrbček, PhD.	Process control and automation	exercises	3D0A003
	Assoc. prof. Ing. Jozef Hrbček, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. prof. Ing. Jozef Hrbček, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005

	Assoc. prof. Ing. Jozef Hrbček, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Assoc. prof. Ing. Marián Hruboš, PhD.	Process control and automation	exercises	3D0A003
	Assoc. prof. Ing. Marián Hruboš, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. prof. Ing. Marián Hruboš, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Assoc. prof. Ing. Marián Hruboš, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Assoc. prof. Ing. Marián Hruboš, PhD.	Basics of research practice	exercises	3D0K002
	Prof. Ing. Aleš Janota, PhD.	Process control and automation	exercises	3D0A003
	Prof. Ing. Aleš Janota, PhD.	Intelligent control systems	exercises	3D0A004
	Prof. Ing. Aleš Janota, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Prof. Ing. Aleš Janota, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Prof. Ing. Aleš Janota, PhD.	Basics of research practice	lectures	3D0K002
	Prof. Ing. Ladislav Janoušek, PhD.	Basics of research practice	lectures	3D0K002
	Assoc. prof. Ing. Dušan Nemec, PhD.	Process control and automation	exercises	3D0A003
	Assoc. prof. Ing. Dušan Nemec, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. prof. Ing. Dušan Nemec, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Assoc. prof. Ing. Peter Peniak, PhD.	Process control and automation	exercises	3D0A003
	Assoc. prof. Ing. Peter Peniak, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. prof. Ing. Peter Peniak, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Assoc. prof. Ing. Peter Peniak, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Prof. Ing. Rastislav Pirník, PhD.	Process control and automation	exercises	3D0A003
	Prof. Ing. Rastislav Pirník, PhD.	Intelligent control systems	exercises	3D0A004
	Prof. Ing. Rastislav Pirník, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Prof. Ing. Rastislav Pirník, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Assoc. prof. Ing. Vojtech Šimák, PhD.	Process control and automation	exercises	3D0A003
	Assoc. prof. Ing. Vojtech Šimák, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. prof. Ing. Vojtech Šimák, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005

	Assoc. prof. Ing. Vojtech Šimák, PhD.	Robotic and autonomous systems	exercises	3D0A006
	Prof. Ing. Pavol Špánik, PhD.	Basics of research practice	lectures	3D0K002
	Assoc. Prof. Dr. Ing. Peter Vestenický	Process control and automation	exercises	3D0A003
	Assoc. Prof. Dr. Ing. Peter Vestenický	Intelligent control systems	exercises	3D0A004
	Assoc. Prof. Dr. Ing. Peter Vestenický	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Assoc. Prof. Dr. Ing. Peter Vestenický	Robotic and autonomous systems	exercises	3D0A006
	Assoc. Prof. Ing. Juraj Ždánsky, PhD.	Process control and automation	exercises	3D0A003
	Assoc. Prof. Ing. Juraj Ždánsky, PhD.	Intelligent control systems	exercises	3D0A004
	Assoc. Prof. Ing. Juraj Ždánsky, PhD.	Risk analysis and safety/security of controlled processes	exercises	3D0A005
	Assoc. Prof. Ing. Juraj Ždánsky, PhD.	Robotic and autonomous systems	exercises	3D0A006

G	**Student representatives representing the interests of students of the study programme**	
	Name, Surname and titles	Contact details
	Ing. Matúš Nečas, student of the 1st year	matus.necas@feit.uniza.sk
H	**Study advisor of the study programme**	
	Name and surname: Assoc. prof. Ing. Juraj Ždánsky, PhD. Mail: juraj.zdansky@uniza.sk Phone: +421/41 513 3342 Access to counselling: consultation hours, information available on the website, individual consultations and counselling services	
I	**Other supporting staff of the study programme – assigned study officer, career counsellor, administration, accommodation department, etc.**	
	Area of responsibilities / Competences: Education Office, study administration. Names: Bc. Viera Beláková and Bc. Emília Pekárová Phone: +421 41 513 2064, 2063 E-mail: studref@feit.uniza.sk UNIZA Accommodation Facilities: https://www.uniza.sk/index.php/studenti/prakticke-informacie/ubytovanie Accommodation Department, responsible person: Renáta Šoková Phone: +421 41 513 1471 E-mail: renata.sokova@uniza.sk	

8.	**Spatial, material, and technical provision of the study programme and support**
A	**List and characteristics of the study programme classrooms and their technical equipment with the assignment to learning outcomes and courses** (laboratories, design and art studios, studios, workshops, interpreting booths, clinics, priest seminaries, science and technology parks, technology incubators, school enterprises, practice centres, training schools, classroom-training facilities, sports halls, swimming pools, sports grounds).

At the university level, the processes and procedures are defined by Directive No. 218 on Information Collection: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

The third-level study programme Process Control is primarily delivered in the teaching facilities of the Department of Control and Information Systems, located in Building AB, 2nd and 3rd floors (https://kris.uniza.sk).
Lectures and seminar exercises of faculty and specialised courses within the Process Control programme are conducted in the lecture halls, classrooms, and laboratories of the University and the FEIT Faculty. The Department of Control and Information Systems has established modern laboratory rooms for teaching and research in the field of process control (https://kris.uniza.sk/laboratoria/). These laboratories are equipped with audiovisual technology (projector, screen, magnetic board, etc.), enabling the delivery of courses in all forms of study as well as the implementation of research tasks in the areas of control, automation, and informatization of transport and industrial processes. The laboratories are built primarily from the department's internal grant resources.
In addition to lecture rooms and laboratories, students may—upon agreement with the laboratory supervisor—use these facilities outside the scheduled timetable for study preparation or discussions with colleagues. The mentioned rooms are available in 3D visualisation at http://priestory.uniza.sk/kris/.

At the university level, the processes and procedures are defined by Directive No. 218 on Information Collection: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

The third-level study programme Process Control is primarily delivered in the teaching facilities of the Department of Control and Information Systems, located in Building AB, 2nd and 3rd floors (https://kris.uniza.sk).
Lectures and seminar exercises of faculty and specialised courses within the Process Control programme are conducted in the lecture halls, classrooms, and laboratories of the University and the FEIT Faculty. The Department of Control and Information Systems has established modern laboratory rooms for teaching and research in the field of processcontrol (https://kris.uniza.sk/laboratoria/). These laboratories are equipped with audiovisual technology (projector, screen, magnetic board, etc.), enabling the delivery of courses in all forms of study as well as the implementation of research tasks in the areas of control, automation, and informatization of transport and industrial processes. The laboratories are built primarily from the department's internal grant resources.
In addition to lecture rooms and laboratories, students may—upon agreement with the laboratory supervisor—use these facilities outside the scheduled timetable for study preparation or discussions with colleagues. The mentioned rooms are available in 3D visualisation at http://priestory.uniza.sk/kris/.

Classroom designation	Classroom equipment	Provided courses
AB 317 **Laboratory of Automatic Control Theory and Signal Processing**	The laboratory is intended for verifying the theoretical foundations in the areas of automatic control theory (continuous and discrete systems), information and signal theory, and digital signal and image processing in process control. This is carried out using custom user-developed programs and the MATLAB software environment with its specialised toolboxes (Simulink, Control Toolbox, Signal Processing Toolbox, Image Processing Toolbox). The laboratory is equipped with real educational models from Humusoft (CE 151) with accessories (Extended Real-Time Toolbox and Real-Time Windows Target). It also includes a laboratory model of an industrial production line developed within a KEGA project, equipped with B&R PLC technology, communication and I/O modules, converters, and drives. The model incorporates automatic identification systems based on various object-identification technologies (vision systems from SICK and B&R),	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses

		RFID-based identification, QR and EAN code scanning, colour detection, and inductive and IR sensing from SICK. The production line model uses B&R PLC technology, which provides model visualisation, control, and task execution related to object sorting based on selected criteria. Laboratory supervisor: Ing. Emília Bubeníková, PhD.	
	AB 318 **Laboratory of Experimental Work**	The laboratory is used for experimental work carried out by doctoral students and by final-year bachelor's and master's students. Its main focus lies in the development, modification, and implementation of an experimental communication subsystem for Intelligent Transport Systems (ITS). The development activities target display devices functioning as dynamic traffic signs, information panels, and similar systems, primarily within the ITS infrastructure–driver communication domain. The laboratory also focuses on applications of communication systems of various standards, primarily intended for vehicle-to-vehicle communication, vehicle-to-infrastructure communication, and communication between ITS infrastructure elements. In addition, research activities include the field of road tunnel systems. Head of the laboratory: Assoc. Prof. Dr. Ing. Peter Vestenický.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses
	AB 315 **Laboratory of Information Technologies**	The Laboratory of Information and Communication Technologies, located in room AB315, focuses on issues related to information systems (databases, web technologies, virtualization), computer networks (modelling, simulation, monitoring), and network security (penetration testing, intrusion detection and prevention, firewalls, cryptanalysis, antimalware). Hardware equipment includes: Juniper IDP 75 – an intrusion detection system; Fluke Networks Time Machine Express NTM-EX2 – a device for network traffic monitoring. Software equipment includes: OPNET Modeler + Wireless Suite – a comprehensive environment for network modelling, simulation, and emulation; OPNET IT Guru Academic Edition – the academic version of the environment; PRTG Paessler Network Monitor – a tool for monitoring network traffic. Laboratory supervisor: Ing. Alžbeta Kanáliková, PhD.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses
	AB 319 **Laboratory of Modelling and Simulation**	The laboratory is primarily used for teaching specialised courses that require the support of software tools. It is intended mainly for modelling the functional properties of control systems (UML; Rhapsody software tool), reliability and safety properties (CARE software tool), and control procedures and control structures (in the Matlab environment). When needed, it can also be used for working with other types of applications, such as the design and operation of database systems, expert systems, and similar technologies. The laboratory is also equipped with systems used for object protection (alarm systems, fire detection systems, CCTV monitoring systems).	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work

	Laboratory supervisor: Ing. Pavol Kuchár, PhD.	related to dissertation projects and doctoral theses
AB 320 **Laboratory of Computer Networks and Secure Communications**	The laboratory focuses on local computer networks, including wireless networks, industrial communication networks, and wireless communication technologies. In addition to standard computer equipment, the technical infrastructure for computer networks includes a structured cabling distribution frame, switches and routers from 3Com, Linksys, and Cisco, an IEEE 802.11 wireless network analyzer, and a tester for structured cabling systems. The equipment for industrial communication networks includes protocol analyzers for PROFIBUS and CAN. The area of radio-frequency identification (RFID) is supported by ELATEC demonstration kits for transponders compliant with ISO 14443, ISO 15693, ISO 18092, MIFARE Classic, MIFARE Desfire, Unique, and EPC Global standards. Laboratory supervisor: Assoc. Prof. Dr. Ing. Peter Vestenický.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses
AB 321 **Laboratory of Microcomputers and Robotics**	The laboratory is intended for research and development in the field of robotics and microcomputers. It is equipped with computers and programming interfaces for programming ATMEL microcontroller families and industrial robots from ABB. The environment provides an exact copy of the real software used to control robots in industrial settings, enabling highly realistic simulations using actual robotic programs and configuration files. Research in the laboratory includes the development of a mobile sensory platform for robot navigation. The laboratory also contains a CNC milling machine with a B&R control system, used for bachelor's and master's thesis projects. Additional equipment includes E-puck robots with the Webots environment, enabling the testing of swarm robotics algorithms. The laboratory is also equipped with a collaborative robot ABB IRB 14000, DC and AC electric motors for teaching the course Actuators, and Mitsubishi frequency converters. Laboratory supervisor: Assoc. Prof. Ing. Vojtech Šimák, PhD.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses
AB 204 **Laboratory of Siemens Industrial Control Systems**	The laboratory focuses on the development and simulation of algorithms for industrial process control. Its core technological equipment consists of PCs, PLCs and safety PLCs from Siemens, expansion modules for connecting sensors and actuators, modules for remote inputs and outputs, visualization panels, frequency converters, servo drives, and software used for programming and configuring these devices. The interconnection of individual components and workstations is implemented through industrial networks. Work with this technology is supported by real models of industrial processes. Laboratory supervisor: Assoc. Prof. Ing. Juraj Ždánsky, PhD.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes The laboratory is also used for individual student work related to dissertation projects and doctoral theses

	AB 205 **Laboratory of Autonomous Mobile Systems**	The laboratory focuses on research, development, and education in the field of service robotics and autonomous transportation solutions. It is equipped with a large-format FDM 3D printer, tools and materials for designing and programming prototypes of ground and aerial robots, and ten PC-based workstations. The laboratory includes a research mobile wheeled robotic platform for operation in harsh environments, ten small e-puck wheeled robots with accessories, a Holybro X500 quad-rotor drone, a SIYI remote video transmission system, and a prototype VTOL drone based on PixHawk technology. In the area of sensing technologies, the laboratory is equipped with several types of LiDAR scanners from Sick and Slamtec, Orbbec RGB-D sensors, a SPAN-CPT GPS+INS system, and an ArduSimple RTK3B dual GNSS RTK receiver with centimetre-level accuracy. The laboratory also features a small model railway layout, partially controlled by an ESA 44 electronic interlocking system from AŽD Praha, while the other part is controlled using Simatic S7-300 and S7-1200 PLCs with an ILTIS operator workstation from Siemens Mobility. Laboratory supervisor: Assoc. Prof. Ing. Dušan Nemec, PhD.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes The laboratory is also used for individual student work related to dissertation projects and doctoral theses
	AB 206 **Laboratory of B&R Industrial Control Systems**	The laboratory focuses on system identification, the design of control algorithms, and their implementation for the control of industrial—and in some cases transportation—processes. It is equipped with programmable logic controllers (PLCs) from B&R, safety PLCs, communication and I/O modules, drives, converters, a traffic-intersection model, and several models of industrial systems, such as: a mechanical motor-control model, a haptic-feedback lever, a ball-on-discs system, an elevator model, temperature, speed and pressure control systems, a CNC multifunction machine and its digital twin, and a delta robot. The laboratory is also equipped with specialised computers and software tools including Automation Studio, Safe Designer, Scene Viewer, MATLAB, and Simulink. Laboratory supervisor: Assoc. Prof. Ing. Jozef Hrbček, PhD.	The laboratory is used for teaching the following courses: Process control and automation, Intelligent Control systems, Risk analysis and safety/security of controlled processes, Robotic and autonomous systems The laboratory is also used for individual student work related to dissertation projects and doctoral theses

B	**Characteristics of the study programme information management** (access to study literature according to Course information sheets, access to information databases and other information sources, information technologies, etc.)
	At the university level, processes, procedures, and structures are defined by Directive No. 218 – Directive on the collection, processing, analysis, and evaluation of information supporting the management of study programmes: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2

The primary information system supporting the educational and teaching processes at the University of Žilina (ŽU) is the Academic Information and Education System (AIVS). AIVS is accessible to students both from the university domain and from the internet, and the university WiFi network supports EDUROAM.
Currently, AIVS provides services that cover the entire lifecycle of a student within a study programme – from submitting an application to the final state examination and all activities related to the completion of studies at the university. AIVS supports the management of study administration at faculties and other university units across all levels, forms, and types of higher education.
Within each study programme, it is used for recording applicants, students, and graduates, monitoring academic results, supporting the credit system in accordance with § 62 of Act No. 131/2002 Coll., supporting timetable creation, and more. It also enables the generation of ECTS information packages (§ 20 para. 1 letter e), activities related to graduation (transcripts, diplomas), as well as the processing of diploma supplements (§ 68 para. 1 letter c).

AIVS consists of several subsystems:

a) Admission Procedure Subsystem - This subsystem enables the processing of applications (both electronic and paper-based), the processing and evaluation of results, communication with applicants (invitations, notifications, decisions), as well as the preparation of statistical reports for the Ministry of Education.

b) Education Subsystem – composed of the following modules:
- Student registry,
- Study administration (study programmes, study plans, course information sheets),
- Enrolment in studies,
- Timetable creation and resource management (classrooms, technical equipment),
- Examination administration (announcement of exam dates, exam registration),
- Study progress – recording of academic results and continuous assessment (Internal Directive No. 100 – Rules for Continuous Quality Assessment of Education at the University of Žilina),
- Study stays (mobilities) – data are part of the student registry and are exported to the central student register.**

c) Completion of Studies Subsystem – composed of the modules Final Theses and State Examinations.
The “Final Theses” module supports the following activities:
- Assignment of thesis topics by the department or supervising teacher,
- Selection of a thesis topic by the student,
- Approval and confirmation of the topic and student by the department,
- Export of basic data from AIVS to the local repository of the final thesis information system – EZAP (Internal Directive No. 103 on Final Theses),
- Submission of the completed thesis to EZAP at the University of Žilina,
- Import of data on the thesis status and the similarity-check protocol from EZAP.

The “State Examinations” module enables:
- Creation of state examination committees by the department,
- Definition of state examination subjects,
- Registration of state examination subjects for graduating students,
- Allocation of students to specific days and committees,
- Recording of examination results for each state examination subject, recording of the thesis evaluation, and online printing of the State Examination Record (signed by the examination committee),
- Diploma printing – carried out by the study departments.

Internal Directive No. 87 of the University of Žilina applies to the preparation of the thesis, its submission to EZAP, and all subsequent steps.

The UniApps application enables access to AIVS data and services from mobile devices running the Android operating system, in line with the university’s strategy for implementing mobile technologies. The university encourages students to use their own mobile devices.
UniApps provides access to information for full-time students at the bachelor’s and master’s levels. The following functionalities are currently available:
- Timetable,
- User profile,
- Exam dates,

	– Exam registration, – Exam results. E-learning: At the university, e-learning is implemented using the Moodle Learning Management System (LMS). Course organization is based on guided study supported by information and communication technologies, closely integrated with AIVS. E-learning has been used at the university since the 2004/2005 academic year. The study programme Process Control is also supported by its own information system in the form of departmental websites, where students can find up-to-date information relevant to their studies. At the faculty level, students of the study programme have free access—thanks to university-wide or nationwide licences—to numerous scientific and technical databases containing research papers and electronic versions of books and textbooks (STN online, Web of Science, ScienceDirect, SCOPUS, IEEE Xplore, Springer, Springer Link, Wiley). Students also have access to an extensive collection of study literature through the University Library (http://ukzu.uniza.sk), either by borrowing materials or studying them in the library's comfortable reading spaces. An integral part of the system is the KRIS departmental library, which contains specialised professional books defined in the ILP as study literature. Additional specialised literature is provided to doctoral students by their supervisors as needed. The library also offers a wide range of electronic services in the e-resources section (http://ukzu.uniza.sk/e-booky/). The EDIS publishing house provides printing services for dissertation theses.
C	**Characteristics and extent of distance education applied in the study programme with the assignment to courses. Access, manuals of e-learning portals. Procedures for the transition from contact teaching to distance learning.**
	Doctoral studies are carried out on an individual basis.
D	**Institution partners in providing educational activities for the study programme and the characteristics of their participation.**
	Character of participation: cooperation in scientific and research activities, involvement in education through expert lectures, opportunities for professional practice and internships, and similar forms of collaboration. **Betamont s.r.o.** Zvolen, J. Jesenského 1054/44, 960 03 Zvolen, Slovensko, https://www.betamont.sk/ This is a company with a 30-year tradition on the Slovak market, developing and integrating its own intelligent transport technologies for both road and railway applications. A representative of the company (Ing. Juraj Maciak, Director of the Research and Technical Development Division at Betamont s.r.o. Zvolen, maciak.juraj@betamont.sk) is a member of the Study Programme Council for Automation (Bachelor's level) as an employer representative. Company representatives have also long participated as members of state examination committees at the bachelor's level. **Siemens Mobility, s. r. o**., Lamačská cesta 3/A, Bratislava 841 04, Slovensko, https://www.mobility.siemens.com/sk/sk.html The company is one of the strategic industrial partners of the department and FEIT UNIZA, and an important employer of technically educated university graduates. Cooperation takes place in several areas: long-term participation in state examination committees at the bachelor's and master's levels, assignment and supervision of qualification theses at lower levels of study, specialised expert lectures (e.g., https://www.feitcity.sk/prednaska-od-priemyselneho-partnera-siemens-mobility/), offering internships and practical training for students, representation in the Study Programme Council for Process Control at the master's level (as an employer representative), discussion and evaluation of the proposed Process Control study programme at the doctoral level from the perspective of an industry authority, establishment and operation of a company's branch workplace within the department, and other forms of cooperation. Contact: Ing. Rastislav Kušpál, a head of the competence centre Siemens Mobility, s. r. o. Bratislava, rastislav.kuspal@siemens.com It is also possible to mention several cooperating entities in the field of research activities: **a) Foreign companies:** • Scheidt & Bachmann Mönchengladbach, Germany • Siemens AG, Austria

	• ALTPRO, Croatia • AŽD Praha, Czech Republic • První Signální Ostrava, Czech Republic • SignalBau Přerov, Czech Republic • První SaZ Plzeň a. s., Czech Republic **b) Foreign universities:** • Czech Technical University in Prague (ČVUT), Czech Republic • Budapest University of Technology and Economics, Hungary • Technical University of Hannover, Germany • Silesian University of Technology in Katowice, Poland In solving tasks within cooperation with companies, it was necessary to address certain problems at a general level and then apply the proposed solutions in specific applications. Many doctoral thesis topics were therefore focused on solving general problems related to modelling the reliability and safety properties of control systems, without a direct link to any particular cooperating company. The aim was to enable the publication of doctoral research results while still complying with the conditions arising from individual contracts concluded with specific companies—namely, not to provide the results of the work to third parties. Partners at the faculty level: https://feit.uniza.sk/spolupraca-s-priemyslom/ Partners at the university level: https://uniza.sk/index.php# in the “Researchers and Partners” tab
E	**Characteristics of the possibilities for social, sports, cultural, spiritual and social activities**
	At the university level, the opportunities for social, sports, cultural, spiritual, and community activities are described in Directive No. 217: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 Information on the opportunities for social, sports, cultural, and spiritual activities available to UNIZA students: https://uniza.sk/index.php# , https://www.uniza.sk/index.php/studenti/studentsky-zivot/volny-cas primarily in the “Students” tab Primary and comprehensive information about all essential aspects necessary for a full-fledged academic life is provided to students in the form of an information guide (distributed both in print and electronically). Students at UNIZA have the opportunity to participate in a wide range of interest-based or self-governing organizations on campus—Gama Club, the Council of Accommodated Students Veľký Diel, the Council of Accommodated Students Hliny, the Internet Club, the student television í-Téčko, the UNIZA Railway Friends Club, the dormitory radios RAPEŠ and Rádio X, the Erasmus Student Network (ESN), the UNIZA University Fire Sport Club, the OMNIA choir, the STAVBÁR folklore ensemble, and the University Pastoral Center at the University of Žilina. Sports activities for students are provided by the Institute of Physical Education, which offers courses in physical education (23 sports), extracurricular sports activities, outdoor activities (rafting, cycling tours, skiing, windsurfing, etc.), the organization of university competitions, and regeneration services (sauna). Several sports facilities are available — FIT-CLUB HLINY V (fitness center, aerobics hall, squash court, multipurpose court, regeneration complex, martial arts gym, climbing wall) and FIT-CLUB VEĽKÝ DIEL (fitness center, multipurpose hall, ricochet court, T18 Veľký Diel gym, Májová Street gym, tennis courts, football grass pitch, athletics track). For those interested in performance sports, the sports sections of the ACADEMIC UNIZA club are available. The Institute of Physical Education regularly organizes one-day and multi-day sports courses in rafting (Soča, Salza, Váh, Hron, Belá), cycling trips combined with hiking, as well as winter skiing courses (Low Tatras, Alps). The University Library provides a wide range of library services (lending services, interlibrary loan services, international interlibrary loan services, bibliographic and information services, information consulting, a COPY center, HandLab, 3D printing, and more). Within the university, EDIS – the UNIZA publishing house operates, offering the sale of study literature, promotional items, copying services, printing and binding of final theses, and related services. Students receive a student ID card, which entitles them to use various services such as the access control system, the catering system, external services outside the university (TRANSCARD – especially bus transport), the university library, accommodation facilities, and an LDAP account that provides access to information systems. Within the university campus, where the study programme is delivered, two accommodation facilities are available — Veľký Diel and Hliny. These dormitories host a variety of sports, cultural, informational, and other interest-based facilities, associations, clubs, and student organizations, either run by students or created for students.

	Students have the option to use the services offered by the university canteen, which provides meals across its seven facilities. Meals can be purchased using the student ID card. News and updates about life at the university, and especially at the faculty, are communicated to students of the study programme through the dedicated FEIT City web portal. At the faculty level, additional opportunities are available, such as the FEIT Ball, FEIT Sports Day, Christmas Punch with the Dean, and similar events. News and updates about life at the university, and particularly at the faculty, are communicated to students of the study programme through the special FEIT City web portal (https://feitcity.sk/).
F	**Possibilities and conditions for participation of the study programme students in mobilities and internships, application instructions, rules for recognition of this education**
	At the university level, the processes, procedures, and structures are defined by Directive No. 219 on the Mobility of Students and Staff of the University of Žilina Abroad. https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 An Erasmus+ study stay or traineeship has become a natural part of studying at UNIZA. A priority of the UNIZA management is to ensure that every student participates in Erasmus+ mobility at least once during their university studies. Current and future FEIT students have the opportunity to study at approximately 70 higher education institutions with which the faculty has concluded cooperation agreements, as well as to complete practical traineeships in companies and organizations within the programme countries. At the faculty level, detailed information for students is provided on the following website: https://feit.uniza.sk/studenti/mobilita-erasmus-2/ the contact person is Mgr. Silvia Pirníková (e-mail: silvia.pirnikova). At the study programme level, the coordinator is: prof. Ing. Aleš Janota, PhD., ales.janota@uniza.sk

9.	**Required abilities and admission requirements for the study programme applicants**
A	**Required abilities and necessary admission requirements**
	At the university level, the processes, procedures, and structures are defined by Directive No. 206 – Principles and Rules of the Admission Procedure for Studies at UNIZA: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 At the faculty level, the Principles and Rules of Admission are approved by the Faculty Academic Senate. These documents describe in detail all required abilities and prerequisites necessary for admission to individual study programmes at FEIT and are available at: https://feit.uniza.sk/studenti/doktorandske-studium/ The application is submitted for a specific study programme, and the applicant applies for a specific dissertation topic, both of which are published on the faculty's website. If the applicant is interested in more than one study programme, a separate application must be submitted for each programme, including payment of the corresponding admission fee. Applicants complete the electronic application via the FEIT website (http://feit.uniza.sk/ in the section Applicants for Study) or the UNIZA website: https://vzdelavanie.uniza.sk/prijimacky/index.php. ***Submitting a properly completed application within the specified deadline and paying the admission fee on time are conditions for the applicant to be included in the admission procedure.*** The basic admission requirement for third-cycle (doctoral) studies at the Faculty of Electrical Engineering and Information Technology of the University of Žilina is the completion of a second-cycle higher education degree (in accordance with the Higher Education Act No. 131/2002 Coll., as amended) in the same or a related study programme. In the case of a foreign applicant or a student who completed their previous studies abroad, the applicant must submit, together with the application or no later than at enrolment, a decision issued by the relevant institution in the Slovak Republic recognizing the second-cycle higher education qualification, or they may request UNIZA to recognize their educational qualification.
B	**Admission procedures**

	At the university level, the processes, procedures, and structures are defined by Directive No. 206 – Principles and Rules of the Admission Procedure for Studies at UNIZA: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 At the faculty level, the Principles and Rules of Admission are approved by the Faculty Academic Senate. These documents describe in detail all required abilities and prerequisites necessary for admission to individual study programmes at FEIT, including the study programme Process Control, and are available at: https://feit.uniza.sk/studenti/doktorandske-studium/ The application is submitted for a specific study programme, and the applicant applies for a specific dissertation topic, both of which are published on the faculty website: https://feit.uniza.sk/studenti/doktorandske-studium/ The selection of applicants is carried out in the form of an admission examination, which applicants attend in person. Applicants are invited to the admission examination in writing and receive detailed information about its procedure. The applicant is required to present an identity document at the examination. The admission examination is conducted orally in the form of a discussion. An applicant with specific needs may, upon request and based on an assessment of their specific requirements, be granted an adjusted form and method of the admission examination by the Dean, taking into account their needs and in accordance with Directive No. 198 – Support for Applicants and Students with Specific Needs at the University of Žilina. During the admission examination, the following criteria are assessed: a) results of previous studies, b) language proficiency, c) the applicant's previous publication activity, d) other relevant activities in the field (student research work, professional experience, internships, etc.), e) the applicant's potential for independent scientific work in the field of the study programme, assessed through a discussion on the selected dissertation topic. The applicant's language proficiency and their level of knowledge in the field of the proposed dissertation topic are evaluated using the grading scale from A – excellent to FX – insufficient. If the applicant receives an FX – insufficient in at least one of these assessed areas, they do not pass the admission examination. Based on the results from all evaluated areas, the admission committee compiles a ranking of successful applicants. This ranking is recorded in the Admission Procedure Report, which is archived at the faculty's Study Department. The final decision on admission or non-admission to doctoral studies in the given study programme is issued by the Dean, based on the results of the admission procedure, taking into account the ranking determined by the admission committee and the capacity of the respective study programme.
C	**Results of the admission process over the last period**
	As stated in the documents "Report on the Evaluation of Education Quality at the FEIT Faculty" for the respective academic years: *https://www.uniza.sk/index.php/component/content/article/4273-sprava-o-hodnoteni-kvality-vzdelavania-na-urovni-fakulty-feit?catid=2:uncategorised&Itemid=101* and "Annual Reports of FEIT" for the respective years, available at: https://feit.uniza.sk/fakulta/uradna-tabula/

10.	**Feedback on the quality of provided education**
	Procedures for monitoring and evaluating students' opinions on the study programme quality
A	This is regulated by Directive No. 223 – Monitoring and Periodic Evaluation of Study Programmes: https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2 Each academic year, students have the right to provide feedback on the quality of teaching through several questionnaires: a course quality questionnaire and a teacher quality questionnaire (for courses in both the winter and summer semesters), a study programme quality questionnaire (at every level of study), a questionnaire for students with specific needs, and a questionnaire on the quality of the admission procedure. All surveys, as well as data collection, are carried out through the IS e-learning system.

The process of monitoring and periodic evaluation of study programmes at UNIZA is conducted at three levels:
a) at the level of the Study Programme Board;
b) at the level of the faculties and institutes of UNIZA;
c) at the level of the UNIZA Accreditation Board.
Monitoring of the study programme at UNIZA involves the continuous observation and review of the educational process within the respective study programme, the implementation of planned activities aimed at improving the quality of education, achieving learning outcomes and educational objectives, and ensuring compliance with relevant legislation, legal regulations, and guidelines.

The following stakeholders participate in the monitoring and periodic evaluation of the study programme:
a) internal stakeholders:
i. students of UNIZA, through feedback at the course level and at the study programme level, collected on an annual basis;
ii. teachers, through regular annual course evaluations and through feedback reflecting their perception of the teaching process, collected on a three-year basis;

b) external stakeholders:
i. graduates of UNIZA, through feedback assessing their transition to the labour market and adaptation in employment, collected on a three-year basis;
ii. employers, through feedback assessing the preparedness of study programme graduates for professional practice, collected on a three-year basis.

Student feedback:
Feedback on the admission procedure and the process of adaptation to university studies is collected through an anonymous questionnaire intended for all first-year students at all levels of study.
Feedback on individual courses is collected through a regular anonymous semester questionnaire intended for all students at all levels of education. It evaluates the educational process at the level of the teacher/course, the teacher's approach, the extent to which learning outcomes can be achieved and their alignment with teaching and assessment methods, as well as specific characteristics of the course.
In the case of courses taught by multiple instructors (e.g., lectures, seminars), a single course questionnaire is used, with separate evaluation sections for each instructor.
Feedback at the study programme level is collected through a regular anonymous questionnaire intended for students in the final year of each level of study. It serves to assess the entire study programme, including the content of education, the organisation of studies, and access to counselling and other student services.

Students are invited to complete the questionnaires either by the teachers (in the case of feedback on the admission procedure and feedback on individual courses) or by the programme guarantors (in the case of study-programme-level feedback). The invitation includes information on where the previous results of monitoring and periodic evaluation have been published.
The results of student feedback on the delivered education, along with identified opportunities for improvement, are subsequently analysed and evaluated. They serve as a basis for preparing the Study Programme Evaluation Report as part of the periodic evaluation of the study programme carried out by the Study Programme Board.

Feedback from graduates:
Feedback from graduates of the study programmes assesses the effect and impact of the completed higher education at the respective level. The anonymous questionnaire is intended for all graduates who completed their studies in the given study programme within the last three years.

The general set of questions consists of items organised at minimum into the following themes:
a) Employment sector;
b) Transition into employment;
c) Relevance of the study programme in relation to employment, including course composition, and a comparison of the knowledge, skills, and competencies acquired during studies with those required in practice.
d) Need for further education.

Graduates are invited by the Study Programme Board, in cooperation with the Dean of the faculty, to complete the questionnaire. The invitation includes information on where the previous results of monitoring and periodic evaluation have been published.

	The study programme guarantor analyses the data obtained from the feedback, identifying opportunities and proposals to strengthen the programme's strong points and to eliminate identified weaknesses and potential risks. The results of the feedback on the delivered education, together with the identified opportunities for improvement, are subsequently analysed and evaluated by the Study Programme Board and serve as the basis for preparing the Study Programme Evaluation Report within the periodic evaluation of the study programme conducted by the Study Programme Board.
B	**Results of student feedback and related measures to improve the study programme quality** The results of student feedback are evaluated through the indicators of the UNIZA Internal Quality Assurance System: $U_{scl}10$ - Student satisfaction with course instruction – overall $U_{scl}11$ - Student satisfaction with the quality of teaching (teaching methods and assessment methods) $U_{scl}12$ - Student satisfaction with the quality of teachers (approach, preparedness) $U_{SCL}13$ - Student satisfaction among students with specific needs $U_{SCL}16$ - Availability of resources planned in the course information sheets of the courses U_{vzdel} 2 - Student satisfaction with adaptation to university studies $U_{VZDEL}9$ - Rate of prevention of academic misconduct $U_{scl}17$ - Student satisfaction with the preparation and course of the internship/practical training $U_{scl}20$ - Student satisfaction of final-year students with the quality of the study programme $U_{scl}21$ - Consistency and impact of education $U_{výstup}$ 2 - Graduate preparedness for professional practice in terms of competencies (Indicator evaluated through the graduate survey conducted every three years) $U_{výstup}$ 1- Employability rate of graduates of the study programme (Indicator evaluated by the Ministry of Education for the calendar year in which the academic year began) $U_{výstup}$ 3 - Employer satisfaction with the achieved learning outcomes of the study programme (Indicator evaluated through the employer survey conducted every three years)
C	**Results of graduate feedback and related measures to improve the study programme quality.** The above indicators are evaluated in annual assessment reports at the level of the study programme, the faculty, and the university. The individual assessment reports are discussed, and in the case of significant shortcomings, appropriate measures are taken at the level of the Study Programme Board, the Dean's Collegium, and the UNIZA Accreditation Board. https://www.uniza.sk/index.php/hodnotiace-spravy

11.	**References to other relevant internal regulations and information concerning the study or the study programme student** (e.g study guide, accommodation regulations, fee directive, guidelines for student loans, etc.).
Internal regulations and information	**Link**
Relevant internal regulations of UNIZA	https://www.uniza.sk/index.php/univerzita/vseobecne-informacie/uradna-tabula
Internal regulations of the Quality Assurance System of UNIZA	https://uniza.sk/index.php?option=com_content&view=article&id=4131:smernice-pre-vnutorny-system-kvality-uniza-2&catid=2