

UNIVERSITY OF ŽILINA

**FACULTY OF ELECTRICAL ENGINEERING AND
INFORMATION TECHNOLOGY**

ANNUAL REPORT 2025

UNIVERSITY OF ŽILINA

Foreword

The Faculty of Electrical Engineering and Information Technology is an essential part of the University of Žilina – a modern university providing a full range of technological, economic, management, and a limited range of humanistic and natural science education at under-graduate, graduate and post-graduate levels.

During its more than 60-year existence the University has become a reputable institution with the firm position in the system of the Slovak higher education institutions. It was originally established in 1953 as the College of Railways in Prague. In 1959 the College changed its name to the University of Transport and in 1962 it was moved to Žilina. Afterwards, as a result of the increasing role of communications, the title was amended to the University of Transport and Communications. A series of transformation steps that brought essential changes into the academic life of the University and its Faculties and Institutes started in 1989. They proved effectiveness on the way towards a modern institution, featuring a character of a full-value university, named the University of Žilina since November 1996.

Nowadays, the University of Žilina consists of 7 Faculties (important dates of their establishing and/or transformation are indicated in parentheses):

- Faculty of Electrical Engineering and Information Technology (1953; 1992; 2019),
- Faculty of Mechanical Engineering (1953; 1992),
- Faculty of Operation and Economics of Transport and Communications (1953),
- Faculty of Civil Engineering (1990),
- Faculty of Management Science and Informatics (1990, 1996),
- Faculty of Security Engineering (1952, 1998, 2014),
- Faculty of Humanities (1998, 2010).

In addition to the Faculties, the University also involves the following 10 Institutes:

- Institute of High Mountain Biology,
- University Science Park,
- Research Centre,
- Institute of Lifelong Education,
- Institute of Forensic Research and Education,
- Institute of Physical Education,
- Institute of Competitiveness and Innovations,
- Aviation Training and Educational Centre
- Institute of Information and Communication Technologies.

PROFILE AND STRUCTURE OF THE FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY

As mentioned above, history of the Faculty of Electrical Engineering and Information Technology of the University of Žilina goes back to the year 1953 when the College of Railways in Prague was founded. Another milestone in its history is the year 1959, when the College of Railways was renamed to the University of Transport and a joint faculty was created by the Faculty of Mechanical Engineering and the Faculty of Electrical Engineering.

In 1962, the College of Railways moved to Žilina. Along with the College, important representatives came to Žilina, who had rich experience from practice, scientific research activities and especially university pedagogical practice. In 1992, after the split, the Faculty returned to its previous original name. The Faculty of Electrical Engineering was renamed in January 2019 to the Faculty of Electrical Engineering and Information Technology. It became the first technically oriented faculty and generally the second Faculty in the Slovak Republic awarded the Quality Certificate for quality control system according to ISO 9001 (in 2003). Since that time further three successful re-certifications were realized (2007, 2010, 2013 and 2016). Due to the introduction of an internal quality system, the implementation of which results from complex accreditation, the Faculty decided in 2019 not to continue with the quality management system according to ISO 9001, and the recertification of the quality management system according to this standard was not carried out.

Structure of the Faculty

From a structure point of view, the Faculty of Electrical Engineering and Information Technology (FEEIT) is consisted of six departments, the Institute of Aurel Stodola, the Service centre and the Dean's office.

Scientific and research activities, properly projected to educational activities, are dynamically developing as a response to floating markets seen within both national and pan-European context. From the solution of classical topics of electrotechnical engineering in transport focused on electric traction, railway safety technology, or technical operation of telecommunications, the main emphasis is currently placed on information and communication technologies applied in the field of safe process management in transport and industry, modern telecommunications technologies, development of power electronic systems and modern management of electrical networks. Interdisciplinary fields are also developing, namely mechatronics, biomedical engineering and multimedia technologies. Through targeted education, the students of the Faculty acquire competencies that will enable them to succeed in the labor market not only on a national but also on an international level. Many graduates of FEEIT work in lucrative positions in many spheres of society with traditional and new employers.

The FEEIT's Departments are listed below:

- Department of Physics (DPh)
- Department of Electromagnetic and Biomedical Engineering (DEBE)
- Department of Mechatronics and Electronics (DME)
- Department of Power Systems and Electric Drives (DPSED)
- Department of Control and Information Systems (DCIS)
- Department of Multimedia and Information-Communication Technology (DMICT)
- Institute of Aurel Stodola (IAS)

The following table 1 shows the distribution of the pedagogical and the research positions at particular FEEIT's departments as of 31. 12. 2025.

Tab. 1: Number of pedagogical and research employees at the departments of FEEIT as of 31. 12. 2025

Department	Pedagogical staff		Research staff	
	Full-time	Part-time	Full-time	Part-time
DPh	16	2	2	1
DEBE	10	-	2	1
DME	15	3	3	13
DPSED	11	3	5	1
DCIS	11	2	-	-
DMICT	23	8	3	-
IAS	-	-	1	1
Total	86	18	16	17

Number of employees at FEEIT according to the categories can be seen in the table 2.

Tab. 2: Number of employees at FEEIT according to the categories in 2019 - 2025

Year	2019		2020		2021		2022		2023		2024		2025	
Full-time / Part-time	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Prof.	16	-	15	-	16	-	16	-	17	-	17	-	18	-
Assoc. Prof. in the position of Prof.	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Guest Prof.	-	1	-	3	-	4	-	4	-	3	-	3	-	3
Assoc. Prof.	29	1	29	1	32	2	30	3	29	2	30	1	27	2
Senior Lecturer in the position of Assoc. Prof.	-	-	-	-	-	-			3	-	3	-	3	-
Senior Lecturer	53	8	48	10	42	9	39	9	41	7	39	6	35	12
Lector	1	2	-	2	-	3	-	3	-	3	-	3	-	2
Tech. Admin. Staff	25	2	23	2	23	1	20	2	20	2	19	2	17	1
Research Staff	13	14	13	15	12	17	13	19	14	21	15	20	16	18
Total	137	28	129	33	126	36	121	40	124	38	123	35	116	38

The most important events in 2025

The most important events at the faculty in 2025 can be summarized as follows:

- In 2025, periodic approval of study programmes (SP) of the 1st and 3rd level of study (after their standard 3-year length of study) was carried out, which was successfully based on the decision of the UNIZA Accreditation Council. I.e. in accordance with the standards for SP issued by SAAVŠ, the UNIZA Accreditation Board approved the study programmes of the faculty of the 1st and 3rd level of study in the period corresponding to their standard length of study with effect from 1.9.2025 to 31.8.2028, specifically 6 SPs in the 1st (bachelor's) level of study - automation, biomedical engineering, electro-optics, electrical engineering (specializations autotronics, electrical power, electric drives and traction and power electronics – in full-time and part-time form of study), communication and information technologies, multimedia technologies; and 5 SPs in the 3rd (doctoral) level of study - electrotechnologies and materials, process control, power electrical engineering, theory of electrical engineering and telecommunications (all in full-time form, Slovak and English).
- In 2025, new SPs were also created and accredited in terms of the name change, namely SP Electrical Engineering (originally Power Electrical Systems) in the 2nd level of study and SP Biomedical Engineering (originally theory of electrical engineering).
- Our long-time partner from the University degli studi di Catania, Prof. Ing. Mario Caciato, PhD. was awarded the title of "doctor honoris causa".
- On the occasion of Teachers' Day, the Rector appreciated the pedagogical work of the best teachers of the university. Among the awardees were also two FEEIT teachers, Ing. Emília Bubeníková, PhD. and Ing. Jozef Šedo, PhD., to whom the Rector of UNIZA presented the J. A. Comenius plaques.
- As part of the 21st year of the project Student Personality of Slovakia Academic Year 2024/2025, a doctoral student of FEEIT UNIZA Ing. Júlia Kafková (3rd year, SP Process Management) became the laureate and winner of the category of Informatics, Mathematical and Physical Sciences of the Slovak Republic.
- The UNIZA Rector's Award was awarded in 2025 to Ing. Miriam Zemaníková, (2nd degree – SP Biomedical Engineering).
- The prestigious award "Aurel Stodola Award" under the auspices of Slovenské elektrárne was won for 1st place by Andrej Čerevka, (3rd year, 1st degree of SP Electrical Engineering), for 2nd place by Bc. Adam Zbončák, (2nd year, 2nd degree, SP Power Electronic Systems) and for 3rd place by Ing. Pavel Stanko (3rd year, 3rd degree, SP Heavy Current Electrical Engineering).
- The implementation of the project under the DIGITAL-2022-CLOUD-AI-02 call called TEF-HEALTH - Testing and Experimentation Facility for Health continued. TEF-Health will provide certification and quality control standards to facilitate the market access of trustworthy AI and ensure that it is easy and efficient to evaluate.
- In 2025, the international scientific project APRIORI (Advanced technologies for Physical Resilience of Critical Infrastructures) funded by NATO also continued. The project aims to provide innovative technologies for the entire critical infrastructure management cycle.
- The faculty has been successful in solving UNIZA grant projects: Call No. 2/2025 in the category of students of the 2nd degree of higher education received 8 submitted student projects received full funding, Call No. 1/2025 in the category of doctoral grant projects received full funding for 10 projects and in the category of young research-pedagogical employees 4 projects received full funding.
- In 2025, the FEEIT UNIZA Industrial Council, which is an advisory body to the Dean, successfully fulfilled its mission.
- Various types of reconstructions were successfully carried out with the aim of increasing the quality of working and study conditions, such as the reconstruction of the FEEIT Dean's Office, the comprehensive

implementation of air conditioning in the FEEIT premises and the extensive reconstruction of the network infrastructure in the heavy laboratories of the BJ building.

- For freshmen of bachelor's studies at FEEIT, the BootFEIT adaptation program was implemented. There was also a Physics and Mathematics Course for FEEIT and FME students.
- As part of the cooperation with the KIA, our faculty received a KIA EV4 electric car as a gift for research, development and pedagogical activities.
- The laboratory for teaching network technologies has undergone a significant reconstruction, its name is CISCO lab.
- On 24 - 27 February 2025, the Kick-off Meeting of the PIONEER+ project took place at the Gustav Eiffel University, Paris, France, which will be implemented throughout UNIZA in the coming years. As part of the project, the WP3 - PIONEER Leadership Workshop was held on 8 - 10 September 2025 at TH Cologne, Germany, where pilot leadership projects related to the transformation of universities, improving leadership, cooperation and innovation were presented and discussed.
- On 27 – 28 October 2025, an introductory meeting for the Erasmus+ project took place at the University of Silesia, Chorzów, Poland: "expEDU - Experiments for better teaching in higher education", 2025-1-PL01-KA220-HED-000363551, which will be implemented in cooperation with universities in Poland, the Czech Republic, Ukraine and Slovakia.
- Cooperation with industry entities in the field of contract research and marketing activities continues to develop successfully. The marketing strategy is implemented through many support events, such as the competition Technical Idea of the Year for university students, active involvement in the MyMachine project, organizing Open Days at FEEIT, UNIZA Masters 2025, Girl's Day and others. On 7/7 - 11/7/2025, the 21st year of the Žilina Children's University took place, which was attended by 94 children.
- In 2025, the Spring and Autumn Drop of Blood was organized in cooperation with ZAIT, in which more than 60 donors from the ranks of FEEIT staff and students participated.
- Students from FEEITgroup, with the support of the faculty management and industrial partners, organized various social events in 2025: 14th FEEIT Representative Ball, Electricians' Spring Games, Semester Opening, Electrician's Punch.
- Also in 2025, FEEIT students and employees went on a joint St. Nicholas expedition to the cottage under Suchý in Malá Fatra. Almost 40 students and employees of FEEIT took part in the expedition.
- In 2025, a large-scale reconstruction of the network infrastructure in the heavy BJ laboratories was successfully implemented. Part of this activity was also the separation of two subnetworks of the department DME and DEBE, which had been merged in the past, which caused operational and safety restrictions in the long run. The implemented changes led to an increase in network reliability, improved data security and better adaptation of the network architecture to the specific needs of individual laboratory workplaces.
- During 2025, intensive preparatory work was carried out on the design and planning of the implementation of the joint faculty WiFi network. When designing the network architecture, emphasis was placed on full compliance with the requirements of the Cyber Security Act, as well as with applicable security standards and recommendations in the field of information systems protection. The preparatory phase included the analysis of the existing infrastructure, the definition of security measures and the design of the concept of a centrally managed and secure wireless network, which will create the prerequisites for its gradual implementation in the coming period.
- In 2025, intensive professional and coordination activities were carried out aimed at implementing the requirements of the NIS2 Directive at the level of the faculty and the entire university. The activities included an analysis of the impact of legislative requirements on existing information and communication systems, risk identification, design of security measures and preparation of internal processes in the field of cyber security management. This process also included close cooperation with the university

management and other relevant workplaces in order to ensure a uniform and systematic approach to meeting the requirements of NIS2 throughout the institution.

- In 2025, new functional modules were implemented on the faculty's website, the aim of which was to improve user comfort and support more efficient employee work. The new modules were designed with an emphasis on clarity, availability of information and simplification of internal processes, reflecting the real needs of individual faculty workplaces. These modifications contributed to a more modern and user-friendly web environment and created the prerequisites for the further development of the faculty's digital services.

EDUCATIONAL ACTIVITIES

- In 2025, periodic approval of study programmes (SP) of the 1st and 3rd level of study (after their standard 3-year length of study) was carried out, which was successfully based on the decision of the UNIZA Accreditation Council. I.e. in accordance with the standards for SP issued by SAAVŠ (Article 11, paragraph 5), the UNIZA Accreditation Board approved the study programmes of the faculty of the 1st and 3rd level of study in the period corresponding to their standard length of study with effect from 1.9.2025 to 31.8.2028, specifically 6 SPs in the 1st (bachelor's) level of study – control engineering, biomedical engineering, electrooptics, electrical engineering (specializations autotronics, electric power systems, electric drives and traction and power electronics – in full-time and part-time form of study), communication and information technologies, multimedia technologies; and 5 SPs in the 3rd (doctoral) level of study - electrotechnologies and materials, process control, power electrical engineering, theory of electrical engineering and telecommunications (all in full-time form, Slovak and English).
- In 2025, new SPs were also created and accredited in terms of the name change, namely SP Electrical Engineering (originally Power Electrical Systems) in the 2nd level of study and SP Biomedical Engineering (originally theory of electrical engineering).
- From 17 to 19 September, i.e. before the beginning of the winter semester, an "Adaptation Week" was carried out for students of the 1st year of the bachelor's degree for better adaptation of new students to university studies.
- In all study programs at the bachelor's and master's levels, students are also offered subjects in the field of social sciences, psychology, economics and law.
- In all study programmes at the bachelor's and master's level, students are also offered subjects focused on the project-based form of teaching, through which students better acquire theoretical and practical aspects in their field of education.
- At the end of each semester, FEEIT students have the opportunity to express their observations, satisfaction or point out shortcomings in the enrolled courses through a questionnaire survey.
- In 2025, periodic approval of study programmes of the 1st level of study and 3rd level of study in full-time form (after their standard length of study) was carried out, which was successful for all submitted FEEIT study programmes based on the decision of the UNIZA Accreditation Council.
- From the academic year 2022/23, students of the 1st and 2nd level of study will be required to complete an individual practice in a selected organization according to the focus of the study program or its specialization, in the range of at least 60 hours, for which they will receive the appropriate number of credits.
- FEEIT supports forms of development of interdisciplinary, multidisciplinary, distance and lifelong learning and the teaching of world languages, by introducing compulsory subjects "professional English" not only in the 1st and 2nd level of study, but also for young workers and doctoral students, as well as other elective subjects.
- At FEEIT, new structures are successfully working to ensure the quality of education at the faculty, consisting of teachers, students, graduates and representatives from practice (Study Program Boards, authorities from practice).
- FEEIT pays increased attention to the adaptation of first-year students of the 1st degree of study to the university environment (information meetings, detailed monitoring of ongoing study results, support for mutual communication between students and teachers, support in solving common student activities, introduction of subjects to support their adaptation to study, e.g. the subject "introduction to study", participation in the UNIZA Buddy system, etc.).

- FEEIT pays significant attention to students of the 3rd level of study. It supports them mainly in the field of creating high-quality publication outputs, fulfilling study plans, processing dissertations and defending them in the standard length of study not only through targeted meetings with students, but also through the introduction of the compulsory subject "basics of scientific work" in the 1st year of study.
- FEEIT has a developed system of student mobility. Student mobility to foreign universities, as well as mobility to the industrial environment, has been supported by FEEIT for a long time and fully integrated into the educational process of students. Students can thus complete part of their studies at major foreign educational institutions or in major industrial enterprises or corporations. For students of the 3rd level of study, the completion of mobility or internship is a mandatory part of the study.
- FEEIT uses a comprehensive software system to support e-learning, which provides access to electronic materials supporting both classic and innovative forms of teaching (such as blended learning), testing and examination of students, and also serves to organize studies.
- FEEIT has a credit system of study in place in all levels of study provided at FEEIT. The system enables uniform evaluation of learning outcomes within the EU and significantly simplifies the implementation of mobilities and achievements within these student mobilities.
- FEEIT has a designated contact person (Vice-Dean for Education) for students with special needs, who helps students to ensure optimal conditions for their studies.
- Under the auspices of the Dean, the FEEIT student group operates at the faculty, which in 2025 organized several events for students, e.g. FEEIT Ball, Spring Games of Electricians, traditional St. Nicholas Tourist Ascent, Electrician's Christmas Punch, Spring and Autumn Drop of Blood, etc., which help to establish and develop supportive relationships between students and teachers.

Tab. 3: Overview of accredited study programs (1st degree - Bachelor study programs, 2nd degree - Master study programs, 3rd degree - Doctoral study programs)

Field of study	Study program	Form of study	Duration of study	Title awarded	Guaranteed by
1st study degree					
Cybernetics	Control Engineering	FT	3 years	Bc.	Aleš Janota
Electrical Engineering	Biomedical Engineering	FT	3 years	Bc.	Ladislav Janoušek
Electrical Engineering	Electrical Engineering Specializations: - autotronics, - electric power systems, - electric traction and drives, - power electronics	FT, PT	3 years	Bc.	Michal Frivaldský
Electrical Engineering	Electrooptics	FT	3 years	Bc.	Dušan Pudiš
Informatics	Multimedia Technologies	FT	3 years	Bc.	Roman Jarina
Informatics	Communication and Information Technologies	FT	3 years	Bc.	Peter Počta
2nd study degree					
Cybernetics	Process Control	FT	2 years	Ing.	Aleš Janota
Electrical Engineering	Biomedical Engineering	FT	2 years	Ing.	Ladislav Janoušek
Electrical Engineering	Photonics	FT	2 years	Ing.	Dušan Pudiš

Electrical Engineering	Power Electronic Systems Specializations: - autotronics, - electric power systems, - electric traction and drives, - power electronics (SP cancelled as of 5.12.2025 by the decision of AR UNIZA)	FT	2 years	Ing.	Michal Frivaldský
Electrical Engineering	Electrical Engineering Specializations: - autotronics, - electric power systems, - electric traction and drives, - power electronics (new SP, internal accreditation - 26.6.2025 approved by AR UNIZA)	FT	2 years	Ing.	Michal Frivaldský
Informatics	Multimedia Engineering	FT	2 years	Ing.	Róbert Hudec
Informatics	Telecommunication and Radio-com. Engineering	FT	2 years	Ing.	Peter Brída
3rd study degree					
Cybernetics	Process Control	FT, PT	3, 4 years	PhD.	Aleš Janota
Electrical Engineering	Electrotechnologies and Materials	FT, PT	3, 4 years	PhD.	Dušan Pudiš
Electrical Engineering	Power Electrical Engineering	FT, PT	3, 4 years	PhD.	Pavol Špánik
Electrical Engineering	Theory of Electrical Engineering (SP cancelled as of 21.12.2025)	FT, PT	3, 4 years	PhD.	Ladislav Janoušek
Electrical Engineering	Biomedical Engineering (new SP, internal accreditation - 26.6.2025)	FT, PT	3, 4 years	PhD.	Ladislav Janoušek
Informatics	Telecommunications	FT, PT	3, 4 years	PhD.	Peter Brída
Cybernetics	Process Control	FT, PT	3, 4 years	PhD.	Aleš Janota
Electrical Engineering	Electrical Technology and Materials	FT, PT	3, 4 years	PhD.	Dušan Pudiš
Electrical Engineering	Power Electrical Engineering	FT, PT	3, 4 years	PhD.	Pavol Špánik
Electrical Engineering	Theory of Electrical Engineering (SP cancelled as of 5.12.2025)	FT, PT	3, 4 years	PhD.	Ladislav Janoušek
Electrical Engineering	Biomedical Engineering (new SP, internal accreditation - 26.6.2025)	FT, PT	3, 4 years	PhD.	Ladislav Janoušek
Computer Science	Telecommunications	D, E	3, 4	PhD.	Peter Brída

Tab. 4: Number of the faculty students (as of 31. 10. 2025)

Field of study/Study program	Number of students			
	Full-time study		Part-time study	
	Nationals	Foreigners	Nationals	Foreigners
1st study degree				
Control Engineering	112	3		
Biomedical Engineering	60	5		
Electrooptics	10			
Electrical Engineering - specialization autotronics	34	2		
Electrical Engineering - specialization electric power systems	107	2	24	
Electrical Engineering - specialization electric traction and drives	17			
Electrical Engineering - specialization power electronics	47		10	
Multimedia Technologies	156	28		
Communication and Information Techn.	79	7		
Total	622	47	34	
2nd study degree				
Biomedical Engineering	30	2		
Photonics	6			
Multimedia Engineering	93	13		
Process Control	39	1		
Telecomm. and Radio-comm. Eng.	23	1		
Power Electronic Systems - specialization autotronics	14			
Power Electronic Systems - specialization electric power systems	32			
Electrical Engineering - specialization electric traction and drives	9			
Power Electronic Systems - specialization power electronics	10	1		
Total	256	18		
3rd study degree				
Electrotechnologies and Materials	7			
Process Control	9		2	
Power Electrical Engineering	14		4	
Telecommunications	10	1		1
Theory of Electrical Engineering	7		1	
Total	47	1	7	1

Tab. 5 and 6: Overview of the faculty students' number since 2021 (as of 31. 10. 2025)

Full-time study				
2021	2022	2023	2024	2025
1st study degree				
785	688	606	616	669
2nd study degree				
263	272	322	324	274
3rd study degree				
52	37	34	43	48
Part-time study				
2021	2022	2023	2024	2025
1st study degree				
0	30	24	37	34
2nd study degree				
0	0	0	0	0
3rd study degree				
9	7	9	9	8

Admission for study

a) Form of the admission procedure in 2025 and a brief assessment:

The basic condition for admission to bachelor study (1st level study programme) was the acquisition of a full secondary education or completed secondary vocational education. The admission procedure takes place in two forms: without an entrance examination and with an entrance examination. Applicants (except for applicants for the study program of *Multimedia Technology*) were admitted to the study without an entrance examination, if they meet the basic conditions for the bachelor's study, and at the same time, during their secondary school studies, they were successful solvers of subject Olympiads in mathematics, physics and computer science, or placed in 3rd place, including at least at the district level, in international and national competitions related to the content of the study program, SOČ or FEEIT UNIZA's Technical Idea of the Year. All study applicants who did not meet the condition for admission to study without an entrance exam, passed the entrance exam. The entrance exam was conducted in the form of a test of knowledge from the secondary school curriculum. When creating the list of admitted applicants who passed the entrance exam, the order of applicants determined by the respective number of points that the applicants obtained from the test of knowledge of the secondary school curriculum was accepted, as well as the decision of the dean of the faculty on the final number of admitted applicants.

Applicants for study in the *multimedia technology* study program completed an entrance exam consisting of two parts: the first round is the same as for other study programmes; the second round is carried out by an admission interview in front of the admissions committee in person (with personal participation). Thanks to this method, the evaluation committee evaluates the applicant's previous work in the field of informatics and multimedia technologies, while it was recommended to prepare their own portfolio.

The results of the applicants' studies in the bachelor's study are taken into account when administering to the master study. Applicants who completed a bachelor's degree in the same field of study with honours or achieved a weighted study average are admitted without a selection procedure. Other applicants pass the entrance examination, which consists of a test from the areas for the state examinations of bachelor's studies at FEEIT UNIZA according to individual study programs, while the applicants for the study program Multimedia

Engineering are also taken into account the specific results of their studies at secondary school and the presentation of the applicant's activities and outputs of creative activities in the field of informatics and multimedia as well as their overall motivation to study.

The selection process for the 2nd study degree is based on results from previous Bachelor study of an applicant. Those applicants who completed the Bachelor degree with honours, or reached the required weighted average are accepted without the selection procedure. The other applicants took the entrance exam, which consisted of a test from state exams for bachelor's studies at FEEIT UNIZA according to individual study programs.

The selection procedure for the 3rd study degree takes the form of a personal interview with each applicant individually in front of an admission committee. One part of the interview is focused on mapping the overview of the applicant in the professional field related to the chosen topic of the doctoral study. The next part aims to verify the knowledge of foreign languages and the assumptions for individual scientific work. The order of applicants is drawn up by the committee in the form of the secret voting.

b) Faculty activities that promote learning:

FEEIT devoted considerable effort to promote the study programs to students of secondary schools. Representatives of the Faculty participated in the Open Days at selected secondary schools. FEEIT organized for secondary schools its own Open Day, which took place in an entertaining way with streaming. FEEIT representatives participated in various promotional events organized at the university level, but also on their own initiative at selected secondary schools. At the same time, online promotion of study opportunities at FEEIT on social networks (Facebook, Instagram, Youtube, ...) was intensified.

Number of applicants for study and number of enrolled students can be seen in the following Tables.

Tab. 7: Statistical review of the admission procedure in 2025

Field of study/Study program	Number of applicants for study					
	Full-time study			Part-time study		
	S	P	E	S	P	E
1st study degree						
Control Engineering	122	84	60			
Biomedical Engineering	77	48	28			
Electrooptics	20	15	5			
Electrical Engineering - specialization autotronics	46	34	24			
Electrical Engineering - specialization electric power systems	132	108	60			
Electrical Engineering - specialization electric traction and drives	26	21	13			
Electrical Engineering - specialization power electronics	61	53	24			
Multimedia Technologies	156	110	87			
Communication and Information Techn.	151	103	48			
Total	791	576	349			
2nd study degree						
Biomedical Engineering	20	18	15			

Photonics	1	1	1			
Multimedia Engineering	74	62	53			
Process Control	16	16	16			
Telecomm. and Radio-comm. Engineering	20	17	13			
Power Electronic Systems - specialization autotronics	10	7	4			
Power Electronic Systems - specialization electric power systems	18	13	12			
Power Electronic Systems - specialization electric traction and drives	2	1	0			
Power Electronic Systems - specialization power electronics	6	6	5			
Total	167	141	119			
3rd study degree						
Electrotechnologies and Materials	4	4	4			
Process Control	2	2	2	1	1	1
Power Electrical Engineering	6	6	5			
Telecommunications	7	6	5			
Theory of Electrical Engineering	3	3	3			
Total	22	21	19	1	1	1

S - Subscribers, P - Participation in the admission procedure, E - Enrolled

Tab. 8: Number of graduates of the Faculty in the academic year 2024/2025

Field of study/Study program	Number of graduates in 2024/2025			
	Full-time study		Part-time study	
	Nationals	Foreigners	Nationals	Foreigners
1st study degree				
Control Engineering	15	1		
Biomedical Engineering	13	2		
Electrical Engineering - specialization autotronics	10			
Electrical Engineering - specialization electric power systems	14			
Electrical Engineering - specialization electric traction and drives	0			
Electrical Engineering - specialization power electronics	0			
Electrooptics	1			
Multimedia Technologies	36	12		
Communication and Information techn.	15	2		
Total	104	17		
2nd study degree				
Biomedical Engineering	20			
Photonics	3			
Multimedia Engineering	53	1		
Process Control	27			
Telecomm. and Radio-comm. Eng.	12			

Power Electronic Systems - specialization autotronics	7			
Power Electronic Systems - specialization electric power systems	15			
Power Electronic Systems - specialization electric traction and drives	5			
Power Electronic Systems - specialization power electronics	4	2		
Total	146	3		
3rd study degree				
Electrotechnologies and Materials	0			
Process Control	0			
Power Electrical Engineering	3			
Telecommunications	2			
Theory of Electrical Engineering	1			
Total	6			

Tab. 9: Overview of graduates of the Faculty since 2019/2020 (as of 31. 12. 2025)

Full-time study					
2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
134	102	156	183	148	121
124	112	131	93	128	149
14	10	17	17	9	6
Part-time study					
2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
9	1	0	0	0	0
0	0	0	0	0	0
1	0	0	0	1	0

Graduates' employment

BACHELOR STUDY PROGRAMMES

Control Engineering

(Field of study Cybernetics)

The graduate will acquire education in the field of control engineering and process control with the support of information and communication technologies. He/she has also practical experience in application of safety critical control and communication systems performed mainly based on PLC and industrial networks. He/she will successfully apply in the operation of control and information systems at the process and operative level. Theoretical knowledge acquired during the bachelor study will create good prerequisites for further education, either within the further forms of university study or within lifelong education.

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

Biomedical Engineering

(Field of study Electrical Engineering)

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

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

Electro-Optics

(Field of study 2675 Electrical Engineering)

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

Software skills: MATLAB, C-Arduino, LabVIEW

Electrical Engineering

(Field of study Electrical Engineering)

The graduate will acquire knowledge from the subjects of theoretical base applied in the fields of power electronics, utilisation of applied microprocessor technique and programming, electric drives, electrical traction, electric power systems and mechatronics. He/she will gain knowledge in the field of quality management and reliability in a production company, marketing and trade, electrical standards, rights and legal regulations related to the field of study. Graduates may further specialise in the field of automobile electrical engineering, electrical traction, electric drives, electric power systems, power electronic systems and mechatronics systems. Graduates obtain theoretical knowledge and practical experience in order to acquire

the principles, installations, operations, functions, service and repairs of electrical products, devices and equipment in compliance with international standards. He/she will successfully apply in all fields of power electrical engineering, in the field of mechatronics, robotics, applied microprocessor technique, electronics, optoelectronics, power electronics, computer design and construction in organisations of administrative, production, operation or repair character.

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

Communication and Information Technologies

(Field of study Informatics)

Graduates of the bachelor's degree study programme - Communication and Information Technologies in the field of study - Informatics will acquire the ability to specialize and adapt to the latest and future needs and requirements of practice in manufacturing companies of network operators and in service companies in the field of electronic communications. They will be prepared for a continuous deepening of knowledge from the field. They can work as qualified workers for the operation and design of technology of communication networks and services and will be able to solve the tasks of practice in team. They can work at the positions of executives, operators of electronic communications, network specialists in enterprises and institutions and developers of communication services and in companies developing technologies of Industry 4.0. Graduates can work as designers, system designers or specialists for various areas of ICT.

Multimedia Technologies

(Field of study Informatics)

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

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

MASTER STUDY PROGRAMMES

Biomedical Engineering

(Field of study Electrical Engineering)

The graduate has an overview of modern technical tools of biomedicine, diagnostic, medical and rehabilitation devices, their safe use and the most recent world trend in their development. The graduate acquired knowledge in theoretical and selected clinical medical disciplines in order to understand the purpose of application of technical tools, ability to assess functionality and ability to create conditions for qualified communication with medical doctors. He/she has a wide knowledge of existing information systems and technologies. The graduate can successfully apply in all fields of technical and information provision of health care facilities, in institutes and laboratories of biomedical research and development, in the field of information systems and in technical management, especially of medical facilities. He/she will also work as a senior executive in the management of medical facilities, in companies that work with biomedical technology.

Software skills: C language, HTML, PHP, MATLAB, Simulink, CST-studio suite.

Photonics

(Field of study Electrical Engineering)

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

Software skills: MATLAB, LabVIEW, ANSYS-SPEOS, Lumerical.

Multimedia Engineering

(Field of study Informatics)

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

Software skills: ADOBE package, HTML, PHP, MySQL, Blender, Unity 3D, Android studio, JAVA, Microsoft Direct3D, OpenGL, After Effect, ZScan, Matlab.

Process Control

(Field of study Cybernetics)

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

telecommunication design and management, research as well as in all areas of application and development of telecommunication, radiocommunication and information and communication technologies and services.
Software skills: Python, C Language, C++, MATLAB, Java, HTML, CSS, SQL

Telecommunication and Radiocommunication Engineering

(Field of study Informatics)

The graduate of the engineering study programme has acquired knowledge in the field of telecommunication and information systems and networks. He/she can explain and apply the basic approaches used in the case of planning and operation of communication networks and project management, together with knowledge of the principles of operation of second to fifth generation (2 – 5G) radio networks and microwave systems, in order to apply the knowledge gained in solving problems related to design, implementation and operation of microwave, radio, metallic and optical transmission systems, with a view to solving problems related to the optimal configuration of network nodes with respect to the guarantee of quality of service (QoS) for IP services, while possessing knowledge in the field of measurement, design and management of transmission and operating systems, system components, and configuration of services. In addition, he/she has gained knowledge of design and verification and selected optical communication chain components and RF circuits used in radio networks through analytical and numerical tools. The graduate is prepared to adapt to the rapidly evolving modern ICT technologies and to apply him/herself as a creative worker in technical development, telecommunication design and management, research as well as in all areas of application and development of telecommunication, radiocommunication and information and communication technologies and services.
Software skills: Python, C Language, C++, MATLAB, Java, HTML, CSS, SQL.

Power Electronic Systems

(Field of study Electrical Engineering)

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

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

DOCTORAL STUDY PROGRAMMES

Electro-technologies and Materials

(Field of study 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 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 Electrical Engineering)

The doctoral degree study in the study programme High-voltage 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, 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 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.

Theory of Electrical Engineering

(Field of study Electrical Engineering)

The doctoral degree study in the study programme Theoretical Electrical Engineering is intended for graduates of the second degree of university study who tend to have an original solution to engineering and scientific problems in the field of Theoretical Electrical Engineering and its applications. To solve these tasks, the doctoral student uses the latest knowledge of modern analytical and numerical methods, methods of mathematical and physical modelling, informatics, measurements of electric and non-electric variables, electronics, interdisciplinary methodologies, biomedical applications, 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.

Tab. 10: Information about final thesis

Number of submitted thesis	Number of defended theses	Physical number of tutors of final thesis	Physical number of tutors of final thesis (without PhD.)	Physical number of tutors of final thesis (experts from practice)
Bachelor thesis				
146	145	78	15	8
Master thesis				
150	149	87	6	16
Doctoral thesis				
6	6	6	0	0

Students' awards in 2025

Awards of students within the university:

- Final evaluation of grant projects carried out in 2025 – results of the Rector's call No. 2/2023 - students of the 2nd level of higher education (the duration of the project was from 21/11/2023 to 31/10/2024)
 - 1st place: Bc. Kristína Paulecová (SP Biomedical Engineering)
 - 2nd place: Bc. Miriam Zemaníková (SP Biomedical Engineering)
 - 3rd place (shared) Bc. Jozef. Jaššák, Bc. Matej Gonda (SP Telecommunication and Radiocommunication Engineering);
- the UNIZA Rector's Award for the best diploma thesis entitled *Low-Frequency Oscillations of Tissue Perfusion and Evaluation of Their Spatial Distribution Using Photoplethysmographic Imaging* was awarded in 2025 to Ing. Miriam Zemaníková, (2nd degree – SP Biomedical Engineering);
- the Rector's Award for Excellent Study Results was awarded to Ing. Miroslav Hutár, PhD. (3rd degree – SP Telecommunications);
- The FEEIT Dean's Award in 2025 in individual study programmes of the 2nd degree was awarded to:
 - Ing. Ľudmila Králiková (SP Biomedical Engineering)
 - Ing. Dušan Kohút (SP Photonics)
 - Ing. Mário Budzeľ (SP Multimedia Engineering)
 - Ing. Andrej Kasman (SP Telecommunication and Radiocommunication Engineering)
- FME Award – 2nd place for the best diploma thesis at the XXIX International Conference Engineering for Environmental Protection – Michal Svrčan
- student awards for works sent and presented at the ŠVOS competition:
 - 1st place:
 - Ing. Marek Zdurienčík for the thesis *Grayscale lithography for new photonic materials* (SP electrotechnology and materials, 3rd degree of study)
 - 2nd place (multiple):
 - Bc. Viktória Pikulíková for the thesis *Photonic beam splitters for efficient on-chip power management* (SP Telecommunication and Radiocommunication Engineering, 2nd degree of study)

- Bc. Adam Petrovič for the thesis *Inverse Design of Dual-Band Grating Couplers for 10 Gbps Passive Optical Networks* (SP Telecommunications and Radiocommunication Engineering, 2nd degree of study)
- 3rd place (multiple):
 - Ing. Karolína Pradeniaková for the thesis *Effect of copper content and remelting conditions on the physical properties of lithium phosphate glasses* (SP Electrotechnology and Materials, 3rd degree of study)
 - Bc. Alexandra Lukáčová for the thesis *Personalized 3D printed boluses as a more effective alternative to conventional materials in radiotherapy* (SP Biomedical Engineering, 2nd degree of study)
 - Ing. Matej Šajban for the thesis *Polarization-Diversionary Devices and Components for Photonic Integrated Circuits* (SP Telecommunication and Radiocommunication Engineering, 2nd degree of study)
- In addition to the above awards, the student Dávid Slošarik (SP automation, 1st degree) was awarded a special prize for his work *Model of a hotbed with IoT elements*, which was awarded by the partner institution ON Semiconductor)

Non-University Student Awards:

- As part of the 21st year of the project Student Personality of Slovakia academic year 2024/2025, a doctoral student of FEEIT UNIZA Ing. Júlia Kafková (SP Process Control) became the laureate and winner of the category of computer science, mathematical and physical sciences within the Slovak Republic.
- The prestigious Aurel Stodola Award, under the auspices of *Slovenské elektrárne*, was won in 2025 by Andrej Čerevka, (3rd year, 1st degree of SP Electrical Engineering), for 2nd place by Bc. Adam Zbončák, (2nd year, 2nd degree, SP Power Electronic Systems) and for 3rd place by Ing. Pavel Stanko (3rd year, 3rd degree, SP Power Electrical Engineering).
- The Scheidt & Bachmann Award was awarded in 2025 to Ing. Adam Kubovčík (SP Multimedia Engineering), for his diploma thesis *AI-based system for finding a parking space* and to Ing. Matúš Vrábek (SP Process Management) for his diploma thesis *Simulation of Secure Vehicle Communication*.

Support for students in 2025

a) scholarships (motivational, faculty)

For excellent study results, the faculty provides students with merit scholarships. In 2025, the following scholarships were awarded:

- merit scholarships – number of scholarship holders 85, amount paid: €45,400,
- extraordinary scholarships – number of scholarship holders 13, amount paid: 1 410 €,
- social scholarships – average number of recipients 15, amount paid: €36,795,
- professional scholarships – number of 85, amount paid: €142,800,
- from own resources – number of scholarship holders 55, paid amount of € 16,453.

b) Consultation and advice

Students have the opportunity to consult problems related to their studies with study advisors, tutors and the Vice-Dean for Education, which they also actively use.

In the academic year 2024/25, the faculty participated in the UNIZA Buddy system project, which aims to provide support and assistance for students in the field of adaptation to the university environment and mental health support through volunteers from the faculty's students.

- c) *the level of student satisfaction with the services provided (accommodation, food, availability of administrative staff, library, study environment, ICT, etc.).*

Students express their satisfaction/dissatisfaction with the services provided through questionnaires, which are continuously processed, evaluated and positive suggestions serve to improve the quality of the services.

SCIENTIFIC RESEARCH ACTIVITIES

Scientific research activity, together with educational activity, is a fundamental mission of the Faculty of Electrical Engineering and Information Technology. Its development is an essential prerequisite for the further advancement of the faculty and is closely linked to the quality of education. Scientific research at the faculty is carried out mainly in the form of projects, with its focus defined by the research activities of individual departments. One of the key outputs of scientific research is scientific publications indexed in major international databases such as Web of Science and SCOPUS, as well as at international conferences supported by prominent professional organizations, in particular IEEE, SPIE, IFAC, IFIP, ACM, IET, SEFI, and others.

Research focus of the departments

Research activities of the **Department of Physics** are carried out by three main research groups. They are focused on the development and application of optic and photonic elements on a chip and in optic fibres, polymeric composite materials for electrical engineering, application of acoustic wave processes for the investigation of condensed matter and theoretical studies of elementary particles. Results are published in impacted journals in databases WOS and SCOPUS. Research is performed in six laboratories. There is also a significant collaboration with the University Science Park.

The section of Acoustics and Materials exploits a wide range of acoustic methods and techniques as well as acoustoelectric, acoustooptic and acoustomagnetic phenomena to investigate semiconductors, metals, ion glasses and magnetic liquids. Acoustic group has reached important results in the areas of semiconductor MOS layers, magnetic fluids on the basis of the transformer oil or water, studies of LiPON type ion glasses as well as in the research of liquid crystals doped with magnetic nanoparticles and carbon nanotubes. Recently, important results have been obtained in the study of nanocomposite polymeric materials.

The section of Optics and Photonics studies physical properties of the conventional telecommunications optic fibres and special fibres such as capillary fibres and photonic fibres and photonic elements and sensors. The latest results are in the area of sensors on a chip and fibres for the laboratory on a chip. The group has extended its activities to laser technologies of preparation and analysis of photonic structures for integrated optics and optoelectronics. The cutting edge photonic elements for applications on a chip and optic fibres are developed using 3D laser lithography. The group also studies the influence of external physical fields on the optical properties of selected polymeric and crystalline solids. The most important results were achieved in the field of special optic fibers and fiber devices for sensor applications. In the field of active devices, the new types of light emitting diodes with patterned surface using photonic structures and polymeric membranes with photonic structure were developed. The development of these devices is based on the latest 3D laser lithographies with submicrometer resolution.

The section of General physics and elementary particles is active in the pedagogical research and in the area of particle physics.

The **Department of Mechatronics and Electronics** has realized and provided research and development, expertise and contracts, and develops publication activity in the field of electronics, control systems, mechatronics and power electronics mainly.

Professional activities of the department have been applied and disseminated on creation and operation of quality and reliable electronic devices and systems, application of programmable logic areas in the design of electronic systems, reconfigurable circuits study as well as diagnostics and analyzing of the failures using image analysis. Topology optimizing for power semiconductor converters and their electromagnetic compatibility belongs to main activities of the department.

The scientific-research and development activities of the **Department of Control and Information Systems** are focused on the area of control tasks algorithmisation, automation of control on process, operational and management levels, while utilising modern artificial intelligence approaches, and on the area of reliable, safe and secure communication and information processing in control of selected critical processes, above all the ones which imply the criterion of safety besides usual optimisation criteria. For reasons given there is a large number of research projects and cooperation projects with praxis and industry directed into the area of applied telematics and intelligent control and safety systems in transport and industry.

Research and Development activities are at the **Department of Electromagnetic and Biomedical Engineering** directed towards areas where the common factors are electromagnetic field and human body. The department has modern research infrastructure and means for realizing numerical simulation, measurements, and experimental analyses. A part of the scientific activities is focused on the electromagnetic non-destructive evaluation of biomaterials. Research methodology in this area combines numerical simulations and experimental investigations. The activities are oriented towards new excitation and detection of signals together with innovative approaches for signal processing and evaluation for the inspection of implants used in medical practice.

The human resources and the research infrastructure of the department create unique basis for the innovation activities in the field of technical and ICT support in medicine. The activities are focused on: electromagnetic biocompatibility, innovative biopotential sensing, photoplethysmography imaging, processing and evaluation of biomedical signals including graphical information and numerical modelling and simulations of dynamical physiological systems. In collaboration with partner institutions research in the field of design and implementation of intelligent textiles, with the system for data collection and processing and their implementation in specific industries, is realized.

Research activities of the **Department of Multimedia and Information-Communication Technologies** cover a wide area of topics related to information-communication and multimedia technologies. Research and development activities are realized by 8 specialized laboratories.

In the area of communication technologies, attention is focussed on problematics of communication networks, software-defined networking, the Internet of things, access technologies, a convergence of network technologies, with main activities focusing on the quality of multimedia services. From the fixed network technology point of view research and development activities are in the area of wideband fully optical networks and photonic systems. In the field of radio technologies research activities are aimed at mobile and satellite communications, localization systems as well as DVB-x distribution technologies.

In the area of information technologies, the department is focused on the development of applied informatics as a support for communication and multimedia technologies. Research and development activities are focussed on the area of digital signal processing, mainly from semantic analysis of audio and video point of view, machine learning including deep neural networks, computer graphics, semantic web and web applications, 3D modelling and virtual reality.

In the area of multimedia technologies, the main orientation is on technological aspects as well as creativity represented by the basics of image composition, direction and work with multimedia content. The main goal in this area is the complex support of future multimedia services, which are created by the inclusiveness of artistic creation and modern trends in the area of informatics. Research activities are focused on the area of an image and sound analysis as well as quality assessment of multimedia signals.

Research and development activities of the **Electric Power System** section at the **Department of Power Systems and Electric Drives** are focused on issues concerning electricity generation, transmission, and distribution. The research activities oriented on electricity generation are mainly focused on a modelling of the operation of renewable energy sources. Simulation results as well as acquired knowledge are used

to design simulation models, which are thereafter applied in power system analyses as well as in the optimization of renewable energy sources' deployment within virtual power plants.

Scientific and research activities in the field of electricity transmission and distribution are focused on the modelling of electric power system operation, especially on an application of the concept of intelligent networks (Smart Grids) to the control of both power transmission and distribution networks.

An integral part of the research activities of the department is solving the issue of power quality in the distribution or transmission system. The issue is solved comprehensively. Attention is given to the causes of poor quality of supply, EMC, statistics in different locations of the system, and of course, possibilities for improvement by the application of the appropriate devices or by the design of other feasible measures.

The section of Electric Drives and Electric Traction mainly focuses on control of all types of electrical drives such as DC motors, AC motors, and special drives with different types of rotors (SRM, RSM, BLDC, and Stepper Motor). Research focus can be divided into the following areas:

Sensorless control of electric machines allows increasing the overall drive reliability as well as reducing the drive size. This topic includes research of estimation algorithms and control techniques for DC and AC drives (IM, PMSM, BLDC, RSM, and SRM). Traditional estimation methods are usually applied for the higher speed range of the drive. For the low, even zero speed, there are methods and algorithms which require high-frequency voltage signal injection for the estimation. Currently, the sensorless techniques form the basis of some control systems characterized by system fault tolerance. This means that at least partial operation under any circumstances is ensured. The research results have been presented at significant international conferences.

Design of novel and progressive control methods – the research in this area has been focused on methods that use forced dynamic control or sliding mode control. These control structures do not require the use of PI controllers, which means avoiding the complications associated with their setting (often trial and error setting technique) and their dependence on changing of the controlled system parameters. This category also includes various support control algorithms providing a wider speed range, less torque ripple, and therefore less vibration and noise.

Design and implementation of control algorithms for linear motors drive applications – linear motors are very progressive especially for high dynamic applications. Research activities cover the designing of control methods that have the capability to avoid all adverse effects of linear motors such as non-linear friction, cogging torque, and other problems that need to be eliminated in the highly precise and dynamic applications.

Design of energy flow control in hybrid railway vehicles – hybrid vehicles are today considered as a very progressive type of railway vehicles. The most needed research issues in this area are primary source operation optimization (catenary or a diesel engine) or braking energy storage that is in conventional vehicles lost as heat. Hybrid vehicles assume utilization of modern energy storage systems, mainly supercapacitors or modern electrochemical cells (lithium-based systems). Research results have been published at several international scientific conferences and implemented in an international commercial project.

Grant projects and cooperation with practice

The most important types of projects are international ones together with projects financed from the Structural Funds as well as projects supported from national resources through the Slovak Research and Development Agency (SRDA), the Scientific Grant Agency of the Slovak Ministry of Education, Science, Research and Sport and the Slovak Academy of Sciences (VEGA) and the Cultural and Educational Grant Agency of the Ministry (KEGA). Cooperation with industrial partners in the field of applied research is also of high importance.

In 2025, a total of 88 tasks were carried out at FEEIT:

Tab. 11: Summary of projects implemented at FEEIT

Project type	Number
Projects of International Programmes	14
VEGA	12
KEGA	6
APVV	12
State Research and Development Program	1
Structural funds	3
FEEIT projects to support young researchers (MVP)	7
FEEIT projects to support researchers (VP)	4
Grant system – projects of Doctoral (PhD.) students	7
UNIZA grant system – projects of young scientific-pedagogical employees under 35 years of age	15
Other national research projects	3
Other national non-research projects	4
Total	88

Conferences and seminars

The Faculty of Electrical Engineering organized, or participated in preparation of the following scientific events in 2025:

- Current Problems of Physics Education and the Possibilities of Their Solution 2025, 24/09 – 25/09/2025, University Centre UNIZA Zuberec, responsible organizer: doc. PaedDr. Peter Hockicko, PhD., DPh.
- Children's University of Žilina 2025, 7/7/2025 - 7/11/2025, UNIZA, responsible organizer: doc. PaedDr. Peter Hockicko, PhD., DPh.
- International MASTERCLASSES 2025, 12/03/2025. University of Žilina, responsible organizer: RNDr. Gabriela Tarjányiová, PhD., doc. RNDr. Ivan Melo, PhD., DPh.
- ADEPT 2025, 15 - 18 June 2025, Podbanské, responsible organizer: prof. Ing. Dušan Pudiš, PhD., DPh.
- Cyber Security in the Regions – Žilina, 10/06/2025, University of Žilina, responsible organizer: doc. Ing. Marián Hruboš, PhD., prof. Ing. Aleš Janota, PhD., DCIS
- KOPES 2025 - Colloquium of Teachers of Electrical Machines of Czech and Slovak Universities, 21/01 - 23/01/2025, ŽILINA - ZUBEREC, organizer: prof. Ing. Pavol Rafajdus, PhD., Ing. Pavel Lehocký, PhD., Ing. Vladimír Vavrúš, PhD., DPSED.

Honors and awards received for research activities

- Doc. Ing. Marek Roch, PhD., DPSED: Award for long-term professional contribution in the field of education of older learners, ICS UNIZA.
- Ing. Emília Bubeníková, PhD., DCIS; Ing. Jozef Šedo, PhD., DME: Plaque of J. A. Comenius for meritorious pedagogical activity.
- Ing. Júlia Kafková, DCIS: Laureate of the Student Personality of Slovakia 2024/2025 award in the category of computer science, mathematical and physical sciences.
- Ing. Pavel Stanko PhD., DPSED: Aurel Stodola Award for the best dissertation.

Publication activities

The permanent task of the Faculty is to increase the publication activity in quality journals which are indexed in international professional databases.

The outputs of the faculty's publishing activities in the period 2017-2025 in the perspective of categorization according to Decree No. 456/2012 until 2021 and according to Decree No. 397/2020 from 2022 is summarized in the following table.

Tab. 12: The outputs of the faculty's publishing activities in the period 2017-2025

Code	Publication category	Code	Publication category	2017	2018	2019	2020	2021	2022	2023	2024	2025
V3	Scientific output of publication activities from the journal	ADC	Scientific works in abroad. Current Administration. Magazines	52	34	26	44	58	106	84	62	85
		ADE	Scientific works in abroad. non-Quarantine. Magazines	14	17	9	6	1				
		ADF	Scientific papers in the house of non-pardon. Magazines	8	8	26	10	3				
		ADM	Scientific works in the west. journals registered in Datab. WoS or SCOPUS	17	9	22	30	15				
		DNA	Scientific papers in house journals reg. in datab. WoS or SCOPUS	7	13	9	10	7				
V2	Scientific output of publication activity as part of an edited book or proceedings	AFC	Published posts on zahrani. scientific conferences	72	145	84	175	58	188	119	168	122
		AFD	Published papers at house science conferences	79	53	123	27	66				
V1	Scientific output of publication activity as a whole	AAA	Ved. monographs published in the Czech Republic. publisher.	1	0	0	0	0	1	4	3	2
		AAB	Scientific monographs published in house publishing houses	1	2	1	3	3				
P1	Pedagogical output of publishing activity as a whole	ACA	University textbooks published in Croatia. Publishers	0	0	0	1	1	5	6	6	3
		ACB	university textbooks published in domestic publishers,	4	1	0	3	1				
		BCI	Textbooks and textbooks	4	1	3	2	6				
O3	Professional output of publication activities from the journal	BDF	Professional work in the house of non-quarantine. Magazines	5	2	1	1	0	0	1	1	0
TOTAL (selected categories)				264	285	304	312	219	300	214	240	212
TOTAL (all categories)				339	338	368	343	243	322	239	287	252

Habilitations and Inaugurations

Tab. 13: Number of habitations and inaugurations since 2008

Year	Habilitation		Inauguration	
	Internal	External	Internal	External
2008	2	5		3
2009			1	1
2010			2	
2011	3		2	
2012	5			
2013	2			1
2014	6	1	3	
2015			2	
2016	2		1	
2017	1		1	
2018	2		2	
2019	1		1	
2020	8			
2021	5		2	
2022	1		1	
2023	1		1	
2024	2			
2025	1		2	

FOREIGN ACTIVITIES

Foreign activities of the Faculty of Electrical Engineering and Information Technology (FEEIT) in 2025 were developed in connection with the solution of international projects, active participation in foreign scientific and professional events and also mutual mobility of teachers, researchers and students at foreign institutions. In 2025, the implementation of a project called TEF-HEALTH - Testing and Experimentation Facility for Health continued, which will provide standards for certification and quality control to facilitate the market access of trustworthy AI and ensure its easy and efficient evaluation.

The international scientific project APRIORI (Advanced technologies for Physical Resilience of Critical Infrastructures) funded by NATO also continued. The project aims to provide innovative technologies for the entire critical infrastructure management cycle. The consortium consists of 5 members, the project coordinator is Università degli Studi del Sannio from Italy.

The faculty successfully continues the implementation of the "Double degree" program in the field of study "Electrical Engineering" with the partner university University degli studi di Catania in Italy, Sicily. One student from the partner university also studied at FEEIT in the academic year 2024/2025.

The title of Dr.h.c. was awarded to our long-time collaborator from the University degli studi di Catania, prof. Ing. Maria Caciato PhD.

In April 2025, participation in the ESA Power Workshop took place in connection with the presentation of the results of the research project Advanced electronics with Supercaps.

As part of the development of international cooperation, last year we visited potential partners at universities: The Hague University of Applied Sciences – Delft, the Netherlands, Università Degli Studi di Catania (UNICT), Italy, Silesian University of Technology, Gliwice, Poland, University of Silesia, Chorzow and Katowice, Poland.

On February 24 - 27, 2025, the Kick-off Meeting of the PIONEER+ project took place at the Gustav Eiffel University, Paris, France, which will be implemented throughout UNIZA in the coming years. As part of the project, the WP3 - PIONEER Leadership Workshop was held on September 8-10, 2025 at TH Koln, Germany, where pilot leadership projects related to the transformation of universities, improving leadership, cooperation and innovation were presented and discussed.

On October 27 – 28, 2025, an introductory meeting for the Erasmus+ project took place at the University of Silesia, Chorzów, Poland: "expEDU - Experiments for better teaching in higher education", 2025-1-PL01-KA220-HED-000363551, which will be implemented in cooperation with universities in Poland, the Czech Republic, Ukraine and Slovakia.

Information about offered study stays, government scholarships, summer schools, excursions, jobs, foundations, etc. are communicated through various communication channels, e.g. the faculty website, the faculty's Facebook page, published on the information board of the faculty Dean's Office and distributed to students, heads of departments at individual workplaces. Their task is to choose the best way to inform their co-workers about the offered opportunities for foreign cooperation and thus achieve the addressability of the information provided.

Programmes supporting educational activities

Program ERASMUS+

Within the frame of Erasmus+ programme, bilateral agreements with 52 foreign universities were approved for students / teachers / other staff exchanges for the academic year 2024/2025, as follows:

1. University of Chemical Technology and Metallurgy (BG)
2. Technical University of Liberec (CZ)
3. VSB-Technical University of Ostrava (CZ)
4. University of West Bohemia in Pilsen (CZ)
5. CTU in Prague (CZ)
6. Tomas Bata University in Zlín (CZ)
7. Bern University of Applied Sciences (CH)
8. RWTH Aachen University (DE)
9. RUHR-Universitaet Bochum (DE)
10. Dresden University of Applied Sciences (DE)
11. Technical University of Dresden (DE)
12. Ilmenau University of Technology (DE)
13. University of Applied Sciences and Kultur Leipzig (DE)
14. Cologne University of Applied Sciences (DE)
15. Universitat Autònoma de Barcelona (ES)
16. Polytechnic University of Catalonia (ES)
17. University of Huelva (ES)
18. Polytechnic University of Cartagena (ES)
19. University of Oviedo (ES)
20. University of Technology of Compiègne (FR)
21. Gustave Eiffel University (FR)
22. University of Patras (GR)
23. University of Zagreb (HR)
24. Budapest University of Technology and Economics (HU)
25. University of Catania (IT)
26. University of Palermo (IT)
27. Technological University Dublin (IRL)
28. Kaunas University of Technology (LT)
29. Riga Technical University (LV)
30. Polytechnic Institute of Bragança (PT)
31. University of Beira Interior (PT)
32. University of Porto (PT)
33. Iscte - University Institute of Lisbon (PT)
34. Bialystok University of Technology (PL)
35. Gdansk University of Technology (PL)
36. Silesian University of Technology (PL)
37. Cracow University of Technology (PL)
38. University of Lomza (PL)
39. Lublin University of Technology (PL)
40. Kazimierz Pulaski University of Technology and Humanities in Radom (PL)
41. West Pomeranian University of Technology (PL)
42. Wrocław University of Technology (PL)

43. "POLITEHNICA" University of Bucharest (RO)
44. Gheorghe Asachi Technical University of Iasi (RO)
45. Aalto University (FIN)
46. University of Jyväskylä (FIN)
47. University of Vaasa (FIN)
48. University of Maribor (SI)
49. Laurea University of Applied Sciences (SF)
50. Bursa Uludağ University (TR)
51. Biruni University (TR)
52. Istanbul Atlas University (TR)

Erasmus+ stays

In the academic year 2024/2025 40 students participated in the Erasmus+ programme and 41 teachers/ employees from FEEIT participated in the Erasmus+ programme.

The Faculty accepted altogether 23 foreign students and 16 teachers/ employees from partner universities.

Other scholarship programmes

In the academic year 2024/2025, the following mobilities were realized from FEEIT:

- 2 students participated in foreign mobilities within the *National Scholarship Programme of the Slovak Republic*,
- 5 students participated in the *2025 EU-Taiwan Semiconductor Short-term Training Programs*.

The Faculty accepted in the academic year 2024/2025:

- 9 students within the *National Scholarship Programme of the Slovak Republic*,
- 1 students within the *"Double degree program"*,
- 2 student within the *Bilateral agreement*.

Other activities

The Faculty of Electrical Engineering and Information Technology cooperates in the frame of bilateral agreements with the following institutions:

- Fergana Polytechnic Institute (UZ)
- University of Catania (IT)
- Tohoku University (Japan)
- Cracow University of Technology (PL)
- The Indian Institute of Technology Indore (IN)

Purpose of these agreements is to enhance academic exchange and co-operation in the field of education and research. The co-operation programme involves especially the following activities:

- exchange of students,
- exchange of faculty members and staff,
- exchange of scientific materials, publications and information,
- joint research and research meetings,
- cooperation within the Doctoral study (mainly with University of Catania (IT)).

In addition, FEEIT cooperates with many other international institutions, in particular:

- University of Strathclyde, Glasgow (UK)
- Tokyo University, Tokio (JP)

- DFCM ISIR Osaka University (JP)
- National Research Council, Ottawa (CA)
- CERN, Ženeva (CH)
- Centre de Nanosciences et de Nanatechnologies, CNRS, Universite Paris-Saclay (FR)

A detailed list of institutions is presented in the annual reports of the departments.

Foreign stays, visits and conferences

Employees of the Faculty performed in 2025 several short or long stays in foreign countries at partner universities or institutions, and on the contrary, FEEIT and its departments accepted teachers from abroad.

An overview of the number of people who arrived at FEEIT or left FEEIT as part of foreign stays (in addition to Erasmus+ and NŠP SR) and visits is shown in the following table.

Tab. 14: Foreign stays and visits in 2025

Foreign stays and visits in 2025						
Country	Department (IN/OUT)					
	DPh	DEBE	DME	DPSed	DCIS	DMICT
Czech Republic		1 / 2			1 / 4	
China	0 / 1					
France	0 / 1					
Netherlands	0 / 2					
Israel					0 / 1	
Latvia						0 / 1
Germany	0 / 1	0 / 1				
Poland	0 / 2	0 / 2			0 / 1	
Austria	0 / 3					0 / 1
Switzerland	0 / 1					
USA		0 / 1				
Total	0 / 11	1 / 6	0 / 0	0 / 0	1 / 6	0 / 2
Total	2 / 25					

Employees of the FEEIT published and/or took part in some international conferences, workshops and symposiums. Detailed information about particular names of employees, titles of papers and conferences, activities performed during the study stays and purposes of foreign visits are presented in annual reports of the departments of FEEIT for 2025.

Submitted proposals for foreign research projects in 2025 / evaluation result

Tab. 15

Type / Challenge	Project name	Evaluation result
DUT/15mC TP	Quality of travel time for human-centric mobility planning in cities with a 15-minute time (F-DUT-2025-0069)	In the rating
APVV	SK-UA-25-0002: Joint research of sensor systems and their applications	In the rating
Horizon Europe,	Interdependent Critical Infrastructure Risk Information System (IRIS-CI)	In the rating

Membership in International Institutions/Committees

Employees of the Faculty of Electrical Engineering and Information Technology, respectively the departments as a whole, are members of many national and international institutions/organizations/committees of international journals, conferences, in scientific boards and trade committees, and so on.

Individual memberships of departments and individuals are listed in the following tables:

Tab. 16

Membership of the Department(s) as a whole in international organizations		
Name of the organisation	FEEIT Chair	Membership from year
CIREC	DPSED	2000
IEEE	DME	2012

Tab. 17

Individual membership of faculty employees in international organizations		
Name	Name of the organisation	Function
prof. Ing. Peter Braciník, PhD.	Werner von Siemens Award 2023/24, category "Best Graduate (Diploma/Dissertation) Thesis on Smart Infrastructure and Energy", Czech Republic	Member
	IEEE International Society	Member, Senior Member
prof. Ing. Ladislav Janoušek, PhD.	Japan Society for Non-destructive Inspection, Tokio, Japan	Member
doc. Ing. Štefan Borík, PhD.	North American Artery Society, USA	Member
prof. Ing. Aleš Janota, PhD.	International Institute of Informatics and Systemics, USA	Member
	ACM - Association for Computing Machinery, USA	Member
prof. Ing. Peter Počta, PhD.	ETSI TC STQ, France	member of the working group
	Study Group 12 at ITU-T, Switzerland	member of the working group
prof. Ing. Peter Brída, PhD.	COST CA22104 - Behavioral Next Generation in Wireless Networks for Cyber Security	National Delegate of the Slovak

		Republic and Member of the Steering Committee
	IGNSS (International Global Navigation Satellite Systems), Austrália	Member
doc. Ing. Juraj Machaj, PhD.	COST CA20120 INTERACT	National Delegate of the Slovak Republic and Member of the Steering Committee
	EURACON - European Association for Communications & Networking	Member
	Marie Curie Alumni Association (MCAA)	Member
Ing. Daniel Benedikovič, PhD.	SPIE, USA	Member
	IEEE Photonics Society, USA	Member
	Optica, USA	Member
	European Optical Society, Finland	Member
doc. Ing. Patrik Kamencay, PhD.	IEEE Signal Processing Society, Piscataway, NJ, USA	Member
doc. PaedDr. Peter Hockicko, PhD.	SEFI, Brussels, Belgium	Member
doc. RNDr. Ivan Melo, PhD.	IPPOG (International Particle Physics Outreach Group)	Slovak representative
	EPPCN (European Particle Physics Communication Network)	Slovak representative
doc. Ing. Norbert Tarjányi, PhD.	European Physical Society, France	Member
prof. Ing. Dušan Pudiš, PhD.	IUVSTA - International Union for Vacuum Science, Technique and Applications	Member
Ing. Štefan Hardoň, PhD.	European Trade Union Committee for Education (ETUCE - HERSC)	Slovak representative
RNDr. Mikuláš Gintner, PhD.	American Physical Society, USA	Member
Ing. Matěj Pach, PhD.	Research and Development Department CZ LOKO, a.s., Česká Třebová, Czech Republic	Member, Senior Member
	IEEE - IAS/IES Joint Chapter, ČS Sekcie	Committee Member
	IEEE – Region 8	Membership Development Subcommittee
	IEEE - Czechoslovak Section	Chairman
prof. Ing. Juraj Altus, PhD.	IEEE International Society	Member, Senior Member
prof. Ing. Pavol Rafajdus, PhD.	IEEE International Society	Member, Senior Member
Prof. Ing. Milan Dado, PhD.	IEEE Signal Processing Society, Piscataway, NJ, USA	Higher Member

prof. Ing. Róbert Hudec, PhD.	IEEE Signal Processing Society, Piscataway, NJ, USA	Member
doc. Ing. Miroslav Benčo, PhD.	IEEE Signal Processing Society, Piscataway, NJ, USA	Member
prof. Ing. Pavol Špánik, PhD.	IEEE IE Society, USA	Member
prof. Ing. Michal Frivaldský, PhD.	IEEE IE Society, USA	Member
doc. Ing. Libor Hargaš, PhD.	IEEE IE Society, USA	Member
doc. Ing. Dušan Koniar, PhD.	IEEE IE Society, USA	Member
doc. Ing. Michal Praženica, PhD.	IEEE IE Society, USA	Member
Ing. Slavomír Kaščák, PhD.	IEEE IE Society, USA	Member
Ing. Ondrej Hock, PhD.	IEEE IE Society, USA	Member
Ing. Roman Koňarik, PhD.	IEEE IE Society, USA	Member
Ing. Jozef Šedo, PhD.	IEEE IE Society, USA	Member
Ing. Matúš Danko, PhD.	IEEE IE Society, USA	Member
doc. Ing. Marek Roch, PhD.	IEEE, USA	Member
doc. Ing. Pavol Makyš, PhD.	IEEE, USA	Member
doc. Ing. Marek Höger, PhD.	IEEE, USA	Member, Senior Member
Ing. Vladimír Vavrúš, PhD.	IEEE, USA	Member
Ing. Martina Kajanová, PhD.	IEEE, USA	Member
Ing. Michal Reguľa, PhD.	IEEE, USA	Member
	CIREN, CZ	UNIZA representative
prof. Ing. Pavol Rafajdus, PhD.	IEEE, USA	Member, Senior Member

Tab. 18

Individual membership of faculty employees in the editorial boards of foreign journals		
Name	Scientific journal name	Function
prof. Ing. Aleš Janota, PhD.	TransNav - International Journal on Marine Navigation and Safety of Sea Transportation, ISSN 2083-6473, e-ISSN 2083-6481, Poland	Member of the Programme Committee
	TransEngin - Journal of civil engineering and transport, ISSN 2658-1698, e-ISSN 2658-2120, Poland	Member of the Scientific

		Committee of the journal
	Journal of Automation, Electronics and Electrical Engineering, p-ISSN 2658-2058, e-ISSN 2719-2954, Poland	Member of the Scientific Committee
prof. Ing. Ladislav Janoušek, PhD.	Elektryka, ISSN 1897-8827, Poland	Member of the Scientific Council
	Computational Problems of Electrical Engineering, ISSN 2224-0977, Ukraine	Member of the Editorial Board
Ing. Roman Radil, PhD.	Applied Sciences, ISSN 2076-3417, Switzerland	Guest Editor of the Special Edition
prof. Ing. Michal Frivaldský, PhD.	Electronics Science Technology and Application, ISSN: 2424-8460 (Online) 2251-2608 (Print), Singapur	Member of the Editorial Board
	Electrical Engineering - Archive of Electrical Engineering, ISSN: 0948-7921 (Print) 1432-0487 (Online)	Editor
	Communications/Scientific letters of the UIniversity of Zilina - SSN (print version) 1335-4205, ISSN (online version) 2585-787	Member of the Editorial Board
	MDPI Electronics – Recent advances in power electronic systems enhanced by wide bandgap technology	guest editor
prof. Ing. Pavol Špánik, PhD.	Advances in Electrical and Electronic Engineering, ISSN 1336-1376 (Print) 1804-3119 (Online), CZ	Member of the Editorial Board
prof. Ing. Peter Braciník, PhD.	Electronics and Electrical Engineering, ISSN 1392-1215, Litva	Member of the Editorial Board
	Energies, ISSN 1996-1073	Member of the Board of Reviewers
prof. Ing. Alena Otčenášová, PhD.	Energies, ISSN 1996-1073	Member of the Board of Reviewers
	Remote Sensing, ISSN 2072-4292	Member of the Board of Reviewers
doc. Ing. Marek Höger, PhD.	Energies, ISSN 1996-1073	Member of the Board of Reviewers
	Remote Sensing, ISSN 2072-4292	Member of the Board of Reviewers
Ing. Martina Kajanová, PhD.	Energies, ISSN 1996-1073	Member of the Board of Reviewers
prof. Ing. Peter Brída, PhD.	Open Engineering, Publisher: DE GRUYTER OPEN, ISSN: 2391-5439, The Netherlands	Editoriek Advisory Board
	Sensors, ISSN: 1424-8220, MDPI, Switzerland	Article of the Topic Board
	Electronics and Electrical Engineering, ISSN: 1392–1320, Kaunas, Litva	editorial board member
	Frontiers in Communications and Networks: IoT and Sensor Networks	Associate Editor
prof. Ing. Róbert Hudec, PhD.	IJATES2 - International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems, ISSN 1805-5443, CZ	Member of the Editorial Board
	Sensors, ISSN: 1424-8220, MDPI, Switzerland	Topical Advisory Panel for section

		'Sensing and Imaging'
	Deep Learning and Artificial Intelligence in Signal Processing, Sensing and Biomedical Imaging, Sensors - MDPI	Special issue editor
	Deep Learning for Medical Applications: Challenges and Opportunities. Bioengineerin - MDPI.	Special Issue Guest Editor
doc. Ing. Juraj Machaj, PhD.	Journal of Computer Networks and Communications, Wiley, ISSN: 1574-017X,, Great Britain	Member of the Editorial Board
	IJATES2 - International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems, CZ	Member of the Editorial Board
doc. Ing. Patrik Kamencay, PhD.	IJATES2 - International Journal of Advances in Telecommunications, Electrotechnics, Signals and Systems, ISSN 1805-5443, CZ	Member of the Editorial Board
	Sensors, ISSN: 1424-8220, MDPI, Switzerland	Topical Advisory Panel for section 'Sensing and Imaging'
	Novel Advances and Applications in Bio-Electromagnetics and Biomedical Engineering , Applied sciences, MDPI	Special issue editor
	Deep Learning and Artificial Intelligence in Signal Processing, Sensing and Biomedical Imaging, Sensors, MDPI	Special issue editor
	Deep Learning for Medical Applications: Challenges and Opportunities, Bioengineering, MDPI	Special Issue Guest Editor
Ing. Miroslav Uhrina, PhD.	MDPI Electronics, Special Issue: Recent Advances in Image/Video Compression and Coding	Special Issue Guest Editor
Prof. Ing. Milan Dado, PhD.	Scientific and technical journal: Measurement, Automation, Robotics, Poland	Member of the Scientific Council
Ing. Róberta Hlavatá, PhD.	Deep Learning for Medical Applications: Challenges and Opportunities This special issue belongs to the section “Biosignal Processing”	Special Issue Guest Editor
Prof. Ing. Miroslav Gutten, PhD	Devices and Methods of Measurements, ISSN 2220-9506, Belarus	Member of the Editorial Board
	PAK - Pomiar Automatyka Kontrol / Measurement Automation Monitoring – Poland, ISSN 0032-4140	Member of the Editorial Board
	International journal for traffic and transport (IJTTE), ISSN 2217-544X, Serbia	Member of the Editorial Board
	Journal of Automation, Electronics and Electrical Engineering JAEED, ISSN 2658-2058, Poland	Member of the Editorial Board
	Technical Issues, ISSN 2392-3954, Poland	Member of the Editorial Board
prof. Ing. Daniel Korenčíak, PhD.	Technical Issues, ISSN 2392-3954, Poland	Member of the Editorial Board
	Journal of Automation, Electronics and Electrical Engineering JAEED, ISSN 2658-2058	Member of the Editorial Board

Tab. 19

Individual membership of faculty employees in scientific/program committees of international conferences		
Name	Conference Name	Function
prof. Ing. Ladislav Janoušek, PhD.	26th International conference "Computational Problems of Electrical Engineering", CPEE 2025, 10. - 12. 9. 2025, Rašovice, CZ	Member of the Programme and Scientific Committee
Prof. Ing. Milan Smetana, PhD.	26th International conference "Computational Problems of Electrical Engineering", CPEE 2025, 10. - 12. 9. 2025, Rašovice, CZ	Member of the Programme and Scientific Committee
doc. Ing. Mariana Beňová, PhD.	26th International conference "Computational Problems of Electrical Engineering", CPEE 2025, 10. - 12. 9. 2025, Rašovice, CZ	Member of the Programme and Scientific Committee
prof. Ing. Aleš Janota, PhD.	22nd International Conference on Informatics in Control, Automation and Robotics (ICINCO 2025), Marbella, Spain: October 20-22, 2025	Member of the Programme Committee
	26th International Carpathian Control Conference ICC'C'2025, Starý Smokovec, Slovakia: May 19-21, 2025	Member of the Technical Programme Committee
	16th International Conference on Marine Navigation and Safety of Sea Transportation TransNav2025, Gdynia, Poland: June 11-13, 2025	Member of the Scientific Programme Committee
	16th International scientific conference on Sustainable, Modern and Safe Transport (TRANSCOM 2025), Grand Hotel Bellevue, High Tatra Mountains, Slovakia: May 21-23, 2025	Member of the Scientific Committee
	32nd International Conference Cybernetics & Informatics '25, Mikulov, Czechia: February 2-5, 2025	Member of the Technical Programme Committee
	IEEE 23rd World Symposium on Applied Machine Intelligence and Informatics (SAMI 2025), Stará Lesná, Slovakia: January 23-25, 2025	Member of the Technical Programme Committee
Ing. Pavol Kuchár, PhD., EUR ING	26th International Carpathian Control Conference ICC'C'2025, Starý Smokovec, Slovakia: May 19-21, 2025	Member of the Technical Programme Committee
prof. Ing. Rastislav Pirník, PhD.	26th International Carpathian Control Conference ICC'C'2025, Starý Smokovec, Slovakia: May 19-21, 2025	Member of the Technical Programme Committee

Ing. Emília Bubeníková, PhD.	Multidisciplinary Aspects of Production Engineering MAPE 2025, September 9-12 2025, Kielce, Poland	Member of the Scientific Committee
Ing. Daniel Benedikovič, PhD.	SPIE Optics+Optoelectronics, USA	Member of the Programme Committee
	SPIE Photonics West, USA	Member of the Programme Committee
prof. Ing. Róbert Hudec, PhD.	35th International Conference RADIOELEKTRONIKA 12-14 May 2025, Hnanice, Czech Republic	Member of the Programme Committee
	20th International conference on computer vision technology and applications VISAPP 2025, 26 - 28. February, Porto, Portugal	Member of the Programme Committee
doc. Ing. Patrik Kamencay, PhD.	35th International Conference RADIOELEKTRONIKA 12-14 May 2025, Hnanice, Czech Republic	Member of the Programme Committee
doc. Ing. Juraj Machaj, PhD.	17th International Conference on Computational Collective Intelligence Technologies and Applications, ICCCI 2025, Ho Chi Minh City, Vietnam	Member of the Scientific Committee
	11th International Conference on Vehicle Technology and Intelligent Transport Systems, VEHITS 2025, Porto, Portugal	Member of the Scientific Committee
	2nd International Conference on Intelligent Digitization of Systems and Services, IDSS2025, Valencia, Spain	Member of the Scientific Committee
	7th International Conference on Cloud Computing and Artificial Intelligence: Technologies and Applications, CloudTech25, Rabat - Morocco	Member of the Scientific Committee
	35th International Conference RADIOELEKTRONIKA 2025, Hnanice, Czech Republic	Member of the Scientific Committee
prof. Ing. Peter Brída, PhD.	17th International Conference on Computational Collective Intelligence Technologies and Applications, ICCCI 2025, Ho Chi Minh City, Vietnam	Member of the Programme Committee (TPC)
	35th International Conference RADIOELEKTRONIKA 12-14 May 2025, Hnanice, Czech Republic	Member of the Scientific Committee
Prof. Milan Dado, PhD.	Smart Cities Symposium Conference, SCSP 2026 Prague, Czech Republic	Member of the Scientific Committee
	TRANSCOM 2025	Member of the Scientific Committee
prof. Ing. Peter Počta, PhD.	Irish Signals & Systems Conference 2025	Member of the Programme Committee (TPC)
	17th International Conference on Quality of Multimedia Experience (QoMEX 2025)	Member of the Programme Committee (TPC)

	IFIP WG 7.3 Performance	Member of the Programme Committee (TPC)
	IEEE International Conference on Communications (ICC 2025): Communication QoS, Reliability and Modeling Symposium	Member of the Programme Committee (TPC)
prof. Ing. Peter Bracíník, PhD.	The 25th International Scientific Conference on Electric Power Engineering, 2025, ČVUT Praha	Member of the Scientific Committee
prof. Ing. Alena Otčenášová, PhD.	The 25th International Scientific Conference on Electric Power Engineering, 2025, ČVUT Praha	Member of the Scientific Committee
prof. Ing. Pavol Rafajdus, PhD.	SPEEDAM 2024, ISCHIA, Italy	Member of the Scientific Committee
doc. Ing. Marek Höger, PhD.	The 25th International Scientific Conference on Electric Power Engineering, 2025, ČVUT Praha	Member of the Scientific Committee
doc. Ing. Marek Roch, PhD.	The 25th International Scientific Conference on Electric Power Engineering, 2025, ČVUT Praha	Member of the Scientific Committee
Ing. Michal Reguľa, PhD.	The 25th International Scientific Conference on Electric Power Engineering, 2025, ČVUT Praha	Member of the Scientific Committee

Tab. 20

Individual membership of faculty employees in scientific councils and trade union committees abroad		
Name	Name	Function
prof. Ing. Pavol Rafajdus, PhD.	CTU Prague, Faculty of Electrical Engineering, Czech Republic	Member of the Trade Union Commission
prof. Ing. Ladislav Janoušek, PhD.	Departmental Committee for Doctoral Studies "Electrical Engineering", Faculty of Electrical Engineering, University of West Bohemia in Pilsen, Czech Republic	Member of the Trade Union Commission
Prof. Ing. Milan Smetana, PhD.	Departmental Committee for Doctoral Studies "Electrical Engineering", Faculty of Electrical Engineering, University of West Bohemia in Pilsen, Czech Republic	Member of the Trade Union Commission
prof. Ing. Aleš Janota, PhD.	VSB-TU Ostrava, FEI, Czech Republic, Field Board of the Study Program Cybernetics	Member of the Field Board of the Cybernetics Study Programme
	CTU Prague, Faculty of Transportation Sciences, Czech Republic, Field Board of the Smart Cities Doctoral Study Program	Member of the Board of Directors of the Smart Cities Doctoral Study Programme

	Polish Academy of Sciences, Katowice, Poland	Member of the Transport Committee
	CTU Prague, Faculty of Transportation Sciences, Czech Republic	Member of the Scientific Council
prof. Ing. Peter Brída, PhD.	VSB TU Ostrava, FEI, Czech Republic	member of the trade union council
	University of Hradec Králové, Faculty of Informatics and Management, Czech Republic	Member of the Scientific Council
prof. Ing. Pavol Špánik, PhD.	VSB TU Ostrava, FEI, Czech Republic	Member of the Scientific Council
	Trade Union Committee Electronics, FEI – VSB TU Ostrava, Czech Republic	Member of the Trade Union Commission
	Electrical Machines, Apparatus and Drives Department, Czech Technical University in Prague, Czech Republic	member of the trade union council
	Program Board of the Faculty of Electrical Engineering, Silesian University of Technology, Gliwice, Poland	Member of the Programme Board
prof. Ing. Róbert Hudec, PhD.	VSB TU Ostrava, FEI, Czech Republic	Member of the Scientific Council
prof. Ing. Michal Frivaldský, PhD.	Scientific Council of the Faculty of Electrical and Electronic Engineering of the University of Ostrava, Czech Republic	Member of the Scientific Council

MAIN TASKS OF THE FACULTY FOR THE YEAR 2026

The development of the Faculty will continue in line with the Long-Term Plan of the Faculty of Electrical Engineering and Information Technology of the University of Žilina for the period 2021–2027, which was discussed at the meeting of the FEEIT UNIZA Scientific Council on February 15, 2021. This process will also incorporate insights gained from the practical implementation of activities proposed in the Long-Term Plan.

The fundamental strategic goal is to build FEEIT as a prestigious educational and research institution, holding a leading position among Slovak faculties and achieving significant international recognition in most of its study programmes as well as in research, development, and innovation.

As part of the faculty's development, infrastructure improvements will include the construction of a modern meeting room within the Dean's Office premises and a faculty ICT laboratory designed to support the teaching of IT-related courses.

Field of education

- Ensure the quality of education in accordance with the new quality standards and the established internal quality assurance system at UNIZA;
- Continuously monitor and ensure the fulfillment of the set indicators of performance contracts in the field of education;
- Collect more extensive feedback from students regarding their satisfaction with the education provided at FEEIT in order to optimize educational activities;

- Organize a meeting of the faculty management with the academic community of the faculty once a year;
- Continue with the established of marketing activities aimed at primary and secondary schools to increase students' awareness of study opportunities at the faculty;
- Continue activities aimed at better adaptation of students to higher education.

Field of science and research

- Active participation in organizing conferences, seminars, events, and special issues of scientific journals;
- Implement qualification growth of FEEIT staff in accordance with established plans;
- Organize and support the ŠVOS competition for all three levels of study, with an emphasis on enabling FEEIT students to participate in national and international rounds of the competition;
- Monitor and evaluate at least twice a year the interim assessment of accreditation standards in the field of doctoral studies, as well as the quality of outputs of programme guarantors, co-guarantors, and habilitation and inauguration procedures;
- Continuously monitor and ensure the fulfillment of the set indicators of performance contracts in the field of research activities and VER;
- Evaluate submitted project proposals to national and international grant agencies twice a year;
- Intensify cooperation with industrial partners and other institutions;
- Define the areas of relevant research activities at the faculty, including staff allocation;
- Monitor and control the records of research activities and their corresponding outputs;
- Prepare grant calls for young researchers and FEEIT research staff;
- Launch a pilot programme of internal research internships "FEEIT Internship", offering students the opportunity to actively participate in ongoing research and collaborate with faculty research groups on current projects.

Field of international cooperation

- Development of tools for more efficient engagement of research groups in the EU Framework Programme for Research and Innovation HORIZON 2020 and other European programs as COST, cross-border cooperation and cooperation with foreign industrial partners;
- Improve the propagation and support of students' and teachers' mobility within the framework of the internationalization of education in order to increase the quality and number of mobilities;
- Create conditions for more effective international cooperation in terms of accreditation standards;
- Attractiveness of the faculty's educational system for international students;
- More prominent presentation of study opportunities in Eastern European countries.

Contacts and Address

Academic Officials

Dean of the Faculty

Prof. Michal Frivaldský

Phone.: 041-513 2050

E-mail: dekan@uniza.sk

Head of Administration and Finance

MSc. Katarína Jurošková

Phone: 041-513 2052

E-mail: katarina.juroskova@uniza.sk

Vice-dean for Education

Assoc. Prof. Mariana Beňová

Phone: 041-513 2057

E-mail: mariana.benova@uniza.sk

Vice-dean for Science, Research and International Relations

Daniel Benedikovič, PhD.

Phone: 041-513 2227

E-mail: daniel.benedikovic@uniza.sk

Vice-Dean for Cooperation with Industry and Public Relations

Prof. Peter Brída

Phone: 041-513 2058

E-mail: peter.brida@uniza.sk

Vice-dean for information systems

Assoc. Prof. Marek Roch

Phone: 041-513 2065

E-mail: marek.roch@uniza.sk

Chair of the Academic Senate

Prof. Ladislav Janoušek

Phone: 041-513 2100

E-mail: ladislav.janousek@uniza.sk

Address

Faculty of Electrical Engineering and Information Technology

University of Žilina

Univerzitná 1

010 26 Žilina

Slovak Republic

For more information, please visit our Internet site on <https://feit.uniza.sk>.