



SLOVAK UNIVERSITY OF
TECHNOLOGY IN BRATISLAVA
FACULTY OF ELECTRICAL ENGINEERING
AND INFORMATION TECHNOLOGY

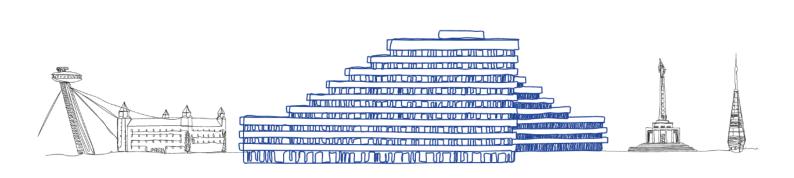




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# **FOREWORD**

The Faculty of Electrical Engineering and Information Technology of STU is the oldest technical faculty with a focus on electrical engineering in Slovakia. It continues the tradition of the Universitatis Istropolitana founded by Matej Korvín in 1467, when the history of higher education began to be written in the territory of today's Slovakia, and the tradition of technical education, the foundations of which were laid by the establishment of the Banská Academy in Banská Štiavnica in 1762.

The Faculty of Electrical Engineering and Information Technology of STU is directly connected with the history of the Slovak Technical University, which opened its first academic year in 1938. The Department of Electrical Engineering of the Department of Mechanical and Electrical

Engineering was opened at the Slovak Technical University by government order in 1941. Subsequently, in 1950, the organizational structure of the Slovak Technical University was changed. The Department of Mechanical and Electrical Engineering was renamed the Faculty of Mechanical and Electrical Engineering, and in 1951 a separate Faculty of Electrical Engineering was established by the division of the Faculty of Mechanical and Electrical Engineering of the Slovak Technical University, On November 1, 1994, the Academic Senate of the Slovak Technical University in Bratislava approved the name change of the Faculty of Electrical Engineering to the Faculty of Electrical Engineering and Information Technology of the Slovak Technical University in Bratislava.

## FACULTY AS A PART OF THE UNIVERSITY

The Faculty of Electrical Engineering and Information Technology is one of the seven faculties of the Slovak University of Technology. Currently, the faculty provides education in three fields of study: electrical engineering, computer science and cybernetics. In these areas, it is also profiled in science and research.

An important milestone for the pedagogy of the university as well as the faculty was the launch of the process of harmonizing the study programs, with the faculty providing education only in harmonized study programs from the academic year 2022/23. The total number of study programs in all three degrees at the faculty is 27, the second highest number among all STU faculties. These programs are accredited in the three fields

mentioned while only three other STU faculties have study programs accredited in more fields. In the winter semester 2024/25, 1,703 students studied at the first level at the faculty, the second largest number among all STU faculties. In the same period, 540 students studied at the second level, the highest number among all STU faculties. 94 fulltime and 28 part-time students studied at the third level, representing the third highest number. Pedagogical performance was provided by 157 university teachers including professors, associate professors, senior lecturers and lecturers. The calculated number of university teachers, 145.89, is the third highest among STU faculties. In 2023/24, 239 bachelor and 227 master students successfully completed their studies, the second highest number of graduates for both degrees. There were 24 doctoral students, the third highest number of graduates. Based on statistical data, the faculty is an extremely successful technical faculty in educating the young generation compared to other STU and Slovak technical faculties. Personnel coverage of pedagogical needs is also at a high level compared to other STU faculties.

From the research point of view, an important parameter is the research capacity of researchers, professors, associate professors and senior lecturers. In 2024, the faculty had a research capacity of 227.48 creative workers, the second highest among all STU faculties. During this period, 128 researchers were registered. The calculated number of researchers is 81.59, the second highest.

The faculty received approximately 1.6 million euros from domestic grant agencies, the second highest amount, and about 380,000 euros from foreign grant agencies, also second highest. In 2024, the faculty implemented one research contract for approximately 2,000 euros, the second lowest amount among STU faculties. In 2024, 92 quarantined articles were created. The number of the most valuable Q1 articles ranks fourth, and the Q2 articles rank second among all faculties. The faculty is very efficient in obtaining projects and is on the borderline of second and third positions in publishing among all seven STU faculties. Research capacities are at a favorable level. However, the faculty has reservations regarding research contracts for work, where it clearly ranks low.

## VISION OF THE FACULTY

The faculty must have a clear vision of development while this vision must be based on real possibilities. The vision of the faculty's development is based on the election program of the current dean and can be divided into 6 fields. The main points of this vision are as follows.

## The field of education

The faculty must always have the highest ambitions, but they must be supported by real results, possibilities and the determination of the workers to move the faculty forward. In today's global and digital world, a faculty based on the local principle has little chance of development. It is therefore essential that:

- 1. the faculty is more open to the international environment in the field of education,
- 2. the faculty makes more use of modern digital tools even during face-to-face teaching,

3. the faculty streamlines its study programs and increases the quality of the educational process.

# The field of research, innovation and cooperation with practice

The faculty has always been and is still considered a bastion of quality research. This research was mostly shaped both by the quality of the workers of individual institutes and by the opportunities offered by the challenges of individual agencies, whether domestic or foreign. In the last period, faculty staff focused to a lesser extent on the field of cooperation with practice and innovations that can be connected to the private as well as the state sector. In view of this fact, it is necessary for:

1. individual institutes of the faculty to be more active in their efforts to acquire foreign scientific projects,

- 2. the faculty to have long-term and effective cooperation with industrial partners, especially in the field of R&D,
- 3. faculty and university project programs for young researchers to be effectively and usefully used.

# Area of working conditions of employees

The previous two areas - pedagogy and research have one basic building block, namely an employee who deals with the given topics with full seriousness, passion and interest. In order for his work to be effective, suitable conditions must be created, either at the faculty level or at the level of the institutes. Therefore, it is necessary for:

- 1. executive, creative teaching and research workers to not be administratively burdened,
- 2. the faculty to be proactive in every service activity of the faculty towards teaching and research workers,
- 3. a code of ethics for faculty employees to be created.

# The field of study and extracurricular conditions of students

Students represent what our pedagogical efforts materialize and at the same time represent the output of our work. In the form of graduates, students represent our future partners in industry and the public, but also our own colleagues in research and pedagogy. It follows that a significant part of the work of teachers and researchers is connected with students, which defines their importance from the point of view of the healthy functioning of the faculty. Therefore, in this area it is necessary for:

1. the faculty to be intensely interested in excellent high school students with an effort to recruit them to study with us,

- 2. the faculty to create such conditions for students that the students themselves will represent the best promoters of the quality of the faculty towards their secondary schools,
- 3. the management of the faculty and individual institutes to organize regular meetings with students to obtain their feedback,
- 4. the faculty to support students' extracurricular activities that shape their technical skills in the areas that the faculty develops.

# The field of public relations

If we were to use the label system for everything that happens at our faculty, then we can call everything that affects and shapes this system from the outside of the system under the term environment. One of the important factors of the environment is the public, which is influenced by the system and is also the one that influences the system. It directly follows that it is extremely important to build a relationship with the public. In the public we can include the lay public who work with passive relationships, the professional public who work with active relationships and our future students who, as graduates, will be part of these relationships. Therefore, it is necessary for:

- 1. the faculty to represent the moral and scientific authority in society,
- 2. the faculty to intensively present its share of innovations in industry,
- 3. the faculty to have a positive impact on the public in terms of the quality of education.

# Faculty management field

All previous fields are integrated in the management of the faculty. It is a field that creates interaction between individual fields and it is therefore extremely important that the field of

faculty management also fulfills the attributes of efficiency and transformation. It is therefore necessary that:

- 1. the faculty work effectively with its human, spatial and economic potential,
- 2. the faculty digitize all internal processes transition to a paperless office,
- 3. the management of the faculty create space for open communication and feedback from faculty employees.

#### STRUCTURE OF THE ANNUAL REPORT

The annual report is divided into 6 main chapters, Introduction, Conclusion and Appendices. The main chapters of this report describe individual activities of the faculty, while detailed tabular and graphical outputs are shown in the Appendices.

The first main chapter Management and bodies of the faculty briefly informs about the composition of individual advisory bodies of the dean as well as elected bodies of the faculty.

The second main chapter, Organizational structure, employees and working conditions, is devoted to individual organizational units, especially institutes and institutes, but also to their personnel composition, scientific and professional orientation, and working conditions at the faculty. The chapter Pedagogy follows, which describes one of the two main activities of the faculty. It briefly informs about accredited study programs, displays basic statistics of study applicants as well as graduates, and deals with student support and other study activities.

The fourth chapter, entitled Scientific-research and cooperation with practice, describes the second

main activity of the faculty. It informs about domestic as well as foreign projects in which the faculty's creative workers participated, their publication outputs, and about scientific events in which the faculty participated. This chapter also includes information on cooperation with practice. The penultimate main chapter, Quality Assurance System, briefly describes a set of policies that the faculty must follow in its activities, especially the evaluation of the quality of the pedagogical process.

The sixth and last chapter, entitled Promotion and public relations, is devoted both to the recruitment campaign of high school students to our faculty and to the promotion of the faculty as a whole. This activity is gaining more and more importance.

The appendices contain lists of the relevant acts and internal regulations of the university, but also of the faculty, by which the faculty is guided in its activities, as well as detailed tables, graphs and other information from the main activities of the faculty.

# MANAGEMENT AND BODIES OF THE FACULTY

# FACULTY MANAGEMENT AND AUTHORIZED PERSONS

# **FACULTY MANAGEMENT**



Prof. Ing. Vladimír Kutiš, PhD., Dean of FEI STU



Prof. Ing. Martin Weis, DrSc., Vice-dean for science, research and HR



RNDr. Soňa Kotorová, PhD., Vice-dean for undergraduate study



Ing. Stanislav Sojak, PhD., Vice-dean for master and PhD. study



Assoc. Prof. Ing. Andrej Babinec, PhD., Vice Dean for intl. relations and coop. with practice



Mgr. Peter Miklovič, PhD., Secretary



Prof. Ing. Peter Hubinský, PhD., Chairman of the FEI STU Academic Senate

## **AUTHORIZED PERSONS**



Assoc. Prof. Ing. Eva Miklovičová, PhD., quality assurance system



Assoc. Prof. Ing. Martin Medvecký, PhD., information technologies and esystems



Ing. Zuzana Záňová, PR and marketing



Ing. Juraj Paulech, PhD., construction and technical activities

# **ELECTED BODIES**

## **ACADEMIC SENATE**

# Presidency

Professor Ing. Peter Hubinský, PhD. Chairman of the AS FEI STU

Professor Ing. Danica Rosinová, PhD. Chairwoman of the Chamber of Employees of the AS FEI STU

Professor Ing. Anton Beláň, PhD. Presidency member of the AS FEI STU Tomáš Tomčo Presidency member, Chairman of the Chamber of Students of the AS FEI STU

Ing. Ondrej Straka Presidency member, Vice-chairman of the Chamber of Students of the AS FEI STU

Chamber of Employees (until 31 October 2024) Professor Ing. Anton Beláň, PhD. Ing. Pavol Bisták, PhD. Mgr. Tomáš Fabšič, PhD.

Associate Professor Ing. Gabriel Farkas, PhD.

Ing. Ján Halgoš, PhD.

Professor Ing. Peter Hubinský, PhD.

Mgr. Karina Chudá, PhD.

Professor Ing. Vladimír Jančárik, PhD.

Mgr. Eva Karasová, PhD.

Associate Professor Ing. Anton Kuzma, PhD.

Mgr. Pavel Lackovič, PhD.

Associate Professor Ing. Juraj Marek, PhD.

Associate Professor Ing. Martin Medvecký, PhD.

Ing. Patrik Novák, PhD.

Associate Professor Ing. Martin Rakús, PhD.

Professor Ing. Danica Rosinová, PhD.

Professor Ing. Vladimír Šály, PhD.

Ing. Michal Tölgyessy, PhD.

# Chamber of Employees (from 1 November 2024)

Professor Ing. Anton Beláň, PhD.

Ing. Pavol Bisták, PhD.

Mgr. Tomáš Fabšič, PhD.

Associate Professor Ing. Gabriel Farkas, PhD.

Ing. Ján Halgoš, PhD.

Professor Ing. Peter Hubinský, PhD.

Mgr. Karina Chudá, PhD.

Professor Ing. Vladimír Jančárik, PhD.

Mgr. Eva Karasová, PhD.

Associate Professor Ing. Anton Kuzma, PhD.

Mgr. Pavel Lackovič, PhD.

Ing. David Maljar, PhD.

Associate Professor Ing. Martin Medvecký, PhD.

Associate Professor Ing. Patrik Novák, PhD.

Associate Professor Ing. Martin Rakús, PhD.

Professor Ing. Danica Rosinová, PhD.

Ing. Boris Cintula, PhD.

Ing. Michal Tölgyessy, PhD.

# **Chamber of Students**

Bc. Martin Berki

Bc. Eunika Farkašová

Bc. Ondrej Kokavec

Katarína Poláčiková

Ing. Ondrej Straka

Jakub Szabo

Dominik Šuráni

Tomáš Tomčo

Bc. Izabela Trepáčová

## SCIENTIFIC COUNCIL

#### Members of the Scientific Council

#### Chairman

Professor Ing. Vladimír Kutiš, PhD.

## Vice-chairman

Professor Ing. Martin Weis, DrSc.

#### Internal members

Professor Ing. Anton Beláň, PhD.

Associate Professor Ing. Peter Bokes, PhD.

Professor Ing. František Duchoň, PhD.

Professor Ing. René Harťanský, PhD. (until 11

November 2024)

Professor Ing. Peter Hubinský, PhD.

Professor Ing. Ivan Kotuliak, PhD.

Associate Professor Ing. Jaroslav Kováč, PhD.

Professor Ing. Alena Kozáková, PhD.

Professor Dr. Ing. Miloš Oravec

Associate Professor Ing. Juraj Packa, PhD.

Professor Ing. Jarmila Pavlovičová, PhD.

Professor Ing. Danica Rosinová, PhD.

Professor Ing. Gregor Rozinaj, PhD.

Professor Ing. Viera Stopjaková, PhD.

Associate Professor Ing. Andrea Šagátová, PhD.

Associate Professor Ing. Radoslav Vargic, PhD.

Associate Professor Ing. Milan Vojvoda, PhD.

## **External members**

Ing. Ivana Budinská, PhD., UI SAV

Professor Ing. Igor Farkaš, Dr., FMFI UK

Dr. h. c. Ing. Peter Fodrek, PhD., Prvá zváračská

Ing. Branislav Hatala, PhD. VUJE, a.s.

Professor Ing. Jaroslav Koton, PhD., FEKT VUT Professor Ing. Pavol Špánik, PhD., FEIT UNIZA Professor RNDr. Daniel Ševčovič, DrSc., FMFI UK

Ing. Milan Ťapajna, PhD., EU SAV

Professor Ing. Liberios Vokorokos, PhD., FEI TUKE

# Secretary

Ing. Tatiana Fodreková

# ADVISORY BODIES

## COUNCIL FOR STRATEGIC AND DEVELOPMENT ACTIVITIES

Professor Ing. Vladimír Kutiš, PhD. Dean of FEI STU, educational activities

Associate Professor Ing. Martin Donoval, PhD. development, research, and innovation

Professor Ing. František Duchoň, PhD. cooperation with industry

Mgr. Peter Miklovič, PhD. economic affairs

#### INDUSTRIAL COUNCIL

prof. Ing. Vladimír Kutiš, PhD.

FFI STU

prof. Ing. František Duchoň, PhD.

**FEI STU** 

Ing. Marián Baláž

ON Semiconductor Slovakia, a.s.

Ing. Miroslav Barus, PhD. FRSTF GROUP GmbH

Ing. Artur Bobovnický, CSc.

Slovak Innovation and Energetical Agency

Ing. Tomáš Fodrek

PRVÁ ZVÁRAČSKÁ, a.s.

Ing. Alexander Janáč, MBA TESCO STORES SR, a. s.

Ing. Martin Kele STV GROUP a.s.

Dipl. Ing. Ján Klimko Scheffler Kysuce spol.s.r.o.

Ing. Ján Lunter ml. Innovatrics, s.r.o.

Ing. Jozef Magic Siemens s.r.o.

Ing. Ivan Marták

Regulatory Authority for Electronic Communications and Postal Services

Ing. Peter Mikuš, PhD. Neways Slovakia, a.s.

Ing. Peter Novák

Tatra Supercompute s.r.o.

Ing. Miroslav Obert

VUJE, a.s.

MUDr. RNDr. Ľudovít Paulis, PhD., MPH. Slovak Academy of Sciences, LF UK

Ing. Štefan Petergáč Datalan, a.s.

Mgr. Martin Venhart, PhD. Slovak Academy of Sciences

Ing. Marta Žiaková, CSc.

Nuclear Regulatory Authority of the Slovak

Republic

## DEAN'S COLLEGIUM

# Members of the Dean's collegium

prof. Ing. Vladimír Kutiš, PhD. Dean of FEI STU

doc. Ing. Andrej Babinec, PhD.
Vice-dean for international relations and cooperation with practice

prof. Ing. Anton Beláň, PhD. Director of the Institute of Power and Applied Electrical Engineering doc. Ing. Peter Bokes, PhD.
Director of the Institute of Nuclear and Physical Engineering

Ing. Ján Cigánek, PhD.
Director of the Institute of Automotive
Mechatronics

doc. Ing. Martin Donoval, PhD.
Director of the Center for Projects and
Cooperation with Practice

prof. Ing. František Duchoň, PhD. Director of the Institute of Robotics and Cybernetics

Ing. Ján Halgoš, PhD.
Acting Director of the Institute of Electrical
Engineering (from 12 November 2024)

prof. Ing. René Harťanský, PhD. Director of the Institute of Electrical Engineering (until 11 November.2024)

prof. Ing. Peter Hubinský, PhD. Chaiman of the Academic Senate of FEI STU

Mgr. Eva Karasová, PhD. Acting Director of the Institute of Communication and Applied Linguistics

RNDr. Soňa Kotorová, PhD. Vice-dean for bachelor studies

prof. Ing. Alena Kozáková, PhD. Chairman of the faculty trade union committee

doc. Ing. Anton Kuzma, PhD.
Director of the institute of Electronics and Photonics

Mgr. Pavel Lackovič, PhD.
Director of the Technological institute of Sports

Mgr. Peter Miklovič, PhD. Secretary of FEI STU

Ing. Stanislav Sojak, PhD.
Vice-dean for master and doctoral studies

Tomáš Tomčo Chairman of the Chamber of Students of the AS FEI STU

doc. Ing. Radoslav Vargic, PhD.
Director of the Institute of Multimedia,
Information and Communication Technologies

doc. Ing. Milan Vojvoda, PhD.
Director of the Institute of Informatics and
Mathematics

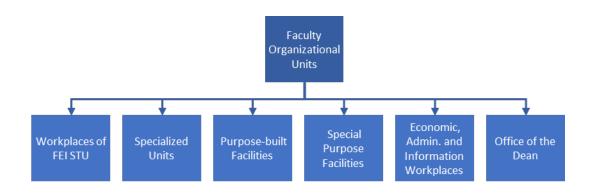
prof. Ing. Martin Weis, DrSc. Vice-dean for science, research and human resources

Ing. Zuzana Záňová Authorized person for PR and marketing

Ing. Miroslava Ostrihoňova – permanently invited guest
Deputy Secretary of the FEI STU

# ORGANIZATIONAL STRUCTURE, EMPLOYEES AND WORKING CONDITIONS

## ORGANIZATIONAL UNITS



# SPECIALIZED UNITS, PURPOSE-BUILT FACILITY AND SPECIAL PURPOSE FACILITIES

## SPECIALIZED UNITS

Currently, there are no specialized units established at the faculty.

## PURPOSE-BUILT FACILITY

 Center for projects and cooperation with practice (2SP)

# **SPECIAL PURPOSE FACILITIES**

- Center for design, operation and decommissioning of nuclear facilities
- Center for solving cyber security incidents
- Center for Research and Management of Batteries (CVMB)
- (Center for Technology Transfer in Nuclear Technology CeNTA)

- Digital innovation HUB "DIH science city Bratislava"
- INOLab Center for innovation and cyber security
- National Center for Space Engineering (NCKI)
- National Center for Telemedicine Services (NCTS)
- Editorial board of the Electrotechnical magazine
- FEI STU exam room
- Smart City Research and Development Center (VVCSC)
- Institute of Experts of the Slovak Technical University in Bratislava (ZÚ STU)

#### OFFICE OF THE DEAN AND DEAN'S ADMINISTRATION

# Office of the Dean

The main mission of the Office of the Dean is to provide all support activities for the dean of the faculty according to his assignment.

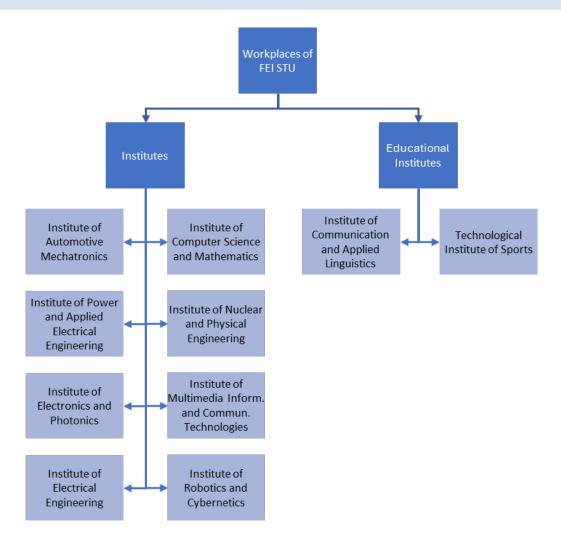
## **Dean's Administration**

The Dean's Administration is currently the only economic-administrative and information Administration workplace. The Dean's comprehensively ensures all activities in the field of administration, organization, implementation of internal and external regulations, human resources, economy, informatics, marketing, pedagogy, library services and operational and technical security. The main mission of the Dean's Administration is to integrate individual departments in order to provide support services to individual

organizational units of the faculty and ensure its smooth operation.

The Dean's Administration of the faculty consists of the following departments:

- Administrative Support to the Secretary
- Department of Administration and Organization
- Marketing Department
- Economic Department
- Human Resources
- Student Affairs
- Library
- Computing Center
- Technical and Operational Department



# INSTITUTE OF AUTOMOTIVE MECHATRONICS (IAMT)

In 2024, the Institute guaranteed study in all 3 levels of higher education in the following study programs:

- Bachelor study program: Automotive mechatronics, guarantor: Associate Professor. Ing. Katarína Žáková, PhD.
- Master study programs: Applied mechatronics and electromobility, guarantor: Professor Ing. Vladimír Kutiš. PhD.
- PhD. SP: Mechatronic systems, guarantor: Professor Ing. Danica Rosinová, PhD

In addition to the courses that are taught for the mentioned study programs, the employees of the institute also participate in the teaching of courses in other SPs at the faculty, as well as at other STU faculties, and every year they conduct final theses for other SPs, especially for SP Applied Informatics. The scientific research activity of the institute is focused on basic and applied research in the field of applied and automotive mechatronics. electromobility and digital technologies. The institute has achieved significant successes in the design of battery systems for electromobility, in the construction of electric cars, where complex projects, electric scooters and electric buggies were created, which serve in the pedagogical process as well as for the promotion of the faculty. Significant results were achieved in the development of numerical methods of modeling and the simulation of mechatronic and mechanical elements and systems, both in the field of computational mechanics and automatic control of mechatronic

elements and systems. The employees of the institute cooperate with colleagues from the following universities: Ruhr-Universität Bochum, Czech Technical University Prague, Tomáš Baťa University in Zlín, Budapest University of Technology and Economics, Technical University of Sofia, Technical University of Košice, University of Žilina in Žilina. In the field of cooperation with practice, the employees of the institute have longterm cooperation with the companies Schaeffler Kysuce, VUJE Trnava, Micro-Epsilon, IAC Group Slovakia, Testek, MAHLE Behr. Part of the cooperation is the solution of bachelor's and diploma theses on topics defined by the partner company. In cooperation with leading industrial enterprises, innovations are introduced into teaching based on trends in the field of Industry 4.0, virtual and mixed reality or cloud services.

Director of the institute	Ing. Ján Cigánek, PhD.
Employees (FO/FTE)	32/25.05
Professors*	4/4
Associate Professors*	8/8
Senior Lecturers	3/3
Researchers	17/10.05
PhD students	13/5/7
Daily/External/Interruption	

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





# INSTITUTE OF POWER AND APPLIED ELECTRICAL ENGINEERING (IPAEE)

The institute plays a key role in the education of students in the field of electrical engineering, it guarantees the following study programs:

- Bachelor study program: Power engineering, guarantor: Professor Ing. Vladimír Šály, PhD.
- Master study programs: Power Engineering, guarantor: Professor Ing. Anton Beláň, PhD.
- Doctoral study program: Power engineering, guarantor: Professor Ing. František Janíček, PhD., Professor Ing Anton Beláň (from 12 September 2024)

Students in SP Power engineering acquire knowledge in production, transmission and distribution of electricity, materials and technologies used in the electric power industry, cable technology, high voltage technology, design, operation, management and protection of electric power systems and lighting equipment.

The Institute is a leader in scientific research related to production, transmission and distribution of electricity and use of renewable energy sources, materials and technologies in the electric power industry. Employees participate in projects of domestic grant agencies APVV, VEGA, KEGA, the framework European program HORIZON and scientific projects requested from practice. The Institute develops research cooperation within Slovakia, primarily with the Technical University in Košice and the University of Žilina. Important foreign partners include Helsinki University of Technology, Istanbul Technical University, Instituto Superior de Engenharia do Porto, Goce Delchev University Stip, Faculty of Electrical Engineering,

ČVUT Prague, VUT Brno and VŠB TU Ostrava. The employees of the institute are recognized experts in electrical engineering, cable technology, high voltage technology and lighting technology in Slovakia and have extensive cooperation with practice.

Important practical partners include companies in Slovakia such as Slovenská elektrizačná prenosová sústava. a.s.. Slovenské elektrárne. Západoslovenská distribučná, a.s., Stredoslovenská distribučná, a.s., VUJE, a.s., VUKI, a.s. and others. Laboratories are an important part of the institute, among the most important are the High Voltage Laboratories at FEI STU and Bratislava's Trnávka and the Lighting Technology Laboratory. laboratories are also certified testing laboratories. Other important laboratories include the Photovoltaics Laboratory, Electrical Networks Laboratory, Electrical Protection Laboratory, Electrical Machines and Drives Laboratory, and Virtual Reality Laboratory.

Director of the institute	Professor Ing. Anton Beláň, PhD.
Employees (FO/FTE)	14/13.4
Professors*	2/2
Associate Professors*	5/5
Senior Lecturers	4/4
Researchers	3/2.4
PhD students Daily/External/Interruption	3/3/3

<sup>\*</sup> Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





# INSTITUTE OF ELECTRONICS AND PHOTONICS (IEP)

In 2024, the Institute guaranteed study in all 3 levels of higher education in the following study programs:

- Bachelor study program: Electronics, guarantor: Professor Ing. Ľubica Stuchlíková, PhD.
- Master study program: Electronics and photonics, guarantor: Professor Ing. Ľubica Stuchlíková, PhD.
- PhD. study program: Electronics and photonics, guarantor: Professor Ing. Viera Stopjaková, PhD.

In addition to courses taught for the mentioned study programs, where students gain knowledge in material foundations, electronic and photonic elements, circuits and systems in chip and discrete forms with wide applications, the institute's employees also teach courses at other SPs at the faculty, other STU faculties and universities, supervising final theses for other SPs annually. They train doctoral students in interdisciplinary topics connecting medicine, electrical engineering and informatics, and cooperate with external educational organizations.

The institute's research focuses on basic and applied design of integrated circuits, power electronics, batteries and renewable sources, microwave technologies, diamond layer technologies, integrated photonic elements, telemedicine devices, and organic electronics. Significant research includes international

cooperation with institutions in Taiwan on power semiconductors, IO design, modeling, simulations and sensor applications. This extensive cooperation allows participation in latest research trends, bringing students closer to current topics and transferring knowledge to teaching, supporting IEP's mission of preparing graduates for practice with usable skills.

The institute cooperates mainly with Technische Universität Ilmenau, TU Graz, TU Chemnitz (EU projects), Wroclaw University, Žilina University, and Technical University in Košice.

Long-term cooperation with industry partners includes Industrial Technology Research Institute, Semikron - Danfoss, onsemi, InoBat, Infineon Technologies, Belgium GaN Foundry (BelGaN) and others.

Director of the institute	Assoc. Prof. Ing. Anton Kuzma, PhD.
Employees (FO/FTE)	60/57.7
Professors*	6/6
Associate Professors*	10/10
Senior Lecturers	5/4.8
Researchers	39/36.97
PhD students Daily/External/Interruption	16/3/5

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





# INSTITUTE OF ELECTRICAL ENGINEERING (IEE)

In 2024, the Institute guaranteed study in all 3 levels of higher education in the study programs:

- Bachelor study program: Electrical engineering, guarantor: Professor Ing. Vladimír Jančárik, PhD.
- Master study program: Applied electrical engineering, guarantor: Professor. Ing. René Harťanský, PhD.
- PhD. study program: Measuring technology, guarantor: Professor Ing. René Harťanský, PhD.

The employees of the institute teach courses within the mentioned study programs and also other SPs at the faculty. A wide spectrum of electrical engineering skills such as electrical and electronic circuits, measurement technology, programming single-chip applications, electromagnetic fields, high-frequency technology and magnetic materials allows you to cover the design of most electronic devices for the home and industry. It allows us to teach this skill to our listeners as well. The study programs are arranged so that the graduate is a fullfledged expert capable of working on the development or construction of electronics or managing this activity. Graduates of these study programs are in demand not only in Slovakia, but also abroad.

As part of the scientific research activity, the institute deals with applied research and development projects of the APVV and projects of the scientific grant agency MŠVVaM SR VEGA in the areas of: applied magnetism, magnetic non-destructive defectoscopy, diagnostic systems, optical cables, optical fiber sensors, electromagnetic compatibility (EMC), digital image

processing and use of artificial intelligence, development of modeling methods and simulations electro-magnetic of fields. micro-electromechanical systems, microwave measurements. The institute cooperates with universities: University of Novi Sad, University of York, Instytut Logistyki i Magazynowania Poland, Seibersdorf Labor GmbH Austria, Kalashnikov Izhevsk State Technical University Russia, National Tsing Hua University Taiwan, Universitat Politecnica de Valencia Spain, VŠB - Technical University Ostrava, Cherkasy State Technological University Ukraine. In the field of cooperation with practice, the institute has been cooperating for a long time mainly with the following companies: Applied Precision, s.r.o. Bratislava, Bel Power Solutions, s.r.o. Dubnica nad Váhom, CarBax, s.r.o. Nitra, CERN Switzerland, Regonik, s.r.o. Bratislava, RMC, s.r.o. Nová Dubnica, Slovak legal metrology, n.o. Banská Bystrica, VUJE, a.s. Trnava, ZVS Holding, a.s. Dubnica nad Váhom, SEC, s.r.o. Nitra, XIMEA, s.r.o. Zohor.

Director of the institute	Ing. Ján Halgoš, PhD.
Employees (FO/FTE)	20/13.2
Professors*	1/1
Associate Professors*	5/3.6
Senior Lecturers	1/1
Researchers	13/7.6
PhD students	8/5/2
Daily/External/Interruption	

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





# INSTITUTE OF COMPUTER SCIENCE AND MATHEMATICS (ICSM)

In 2024, the Institute guaranteed study in all 3 levels of higher education in the following study programs:

- Bachelor study program: Applied informatics, guarantor: Professor dr. rer. nat. Martin Drozda
- Master study program: Applied informatics, guarantor: Professor dr. Ing. Miloš Oravec
- PhD. study program Applied Informatics, guarantor: Professor dr. Ing. Miloš Oravec

In addition to the courses that are taught for the mentioned study programs, employees provide teaching of mathematical courses, especially in the initial years of bachelor studies in all study programs offered at FEI STU. The scientific research activity of the institute focuses on the field of machine learning, neural networks and artificial intelligence, cryptology (post-quantum cryptography, but also historical ciphers), cyber security (malware protection, OS security), mobile computing, algorithmic trading. In mathematics, research focuses on quantum logics, generalized probability, applications of statistics, differential equations, numerical methods, graph theory and financial mathematics.

The employees of the institute collaborate with colleagues from the following universities: The University of Alabama, Huntsville U.S.A.; VTT

Technical Research Center, Finland; Universidad Carlos III, Madrid, Spain; SAS Institute of Physics, SAS Historical Institute, FMFI UK, FPV UKF Nitra. In the field of cooperation with practice, the institute's employees have long-term cooperation with the Ministry of Defense of the Slovak Republic, the National Security Office, the National Bank of Slovakia and the companies MEDIREX, a.s., ON Semiconductor Slovakia, a.s., NETGRIF s.r.o., auditi.it, s.r.o., IstroSec s.r.o., Sygic a.s., ESET, spol. s.r.o., Binary House s. r. o., citadelo s.r.o.

Director of the institute	Assoc. Prof. Ing. Milan Vojvoda, PhD.
Employees (FO/FTE)	45/40
Professors*	3/3
Associate Professors*	7/7
Senior Lecturers	23/22.9
Researchers	12/7.1
PhD students Daily/External/Interruption	7/0/6

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





#### INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING

In 2024, the Institute guaranteed study in all 3 levels of higher education in the following study programs:

- Bachelor study program: Nuclear and physical engineering, guarantor: Associate Professor Ing. Andrea Šagátová, PhD.
- Master study program: Nuclear and physical engineering, guarantor: Professor. Ing. Vladimír Slugeň, DrSc.
- PhD. study program: Nuclear power engineering, guarantor: Professor. Ing. Vladimír Nečas, PhD.
- PhD. study program: Physical engineering, guarantor: Professor Ing. Márius Pavlovič, PhD.

In addition to the courses that are taught for the mentioned study programs, the employees of the institute also participate in the teaching of subjects in other SPs at the faculty, such as courses of the basic course of physics, environmental science and others.

In the field of research and diagnostics of materials, researchers of the institute use modern technologies to accurately characterize the properties of materials and identify potential defects, thereby contributing to higher quality and safety of materials in several branches of industry. Research at the institute also focuses on the use of various types of ionizing radiation to study the structure and also on changing the properties of materials and preparing detectors. Research in material physics covers the study of the properties

of materials at the microscopic level. Their structure, conductive properties, mechanical resistance and many other aspects are investigated to support innovations in materials engineering.

The employees of the institute cooperate with colleagues from the following universities and research institutions: HZDR Dresden, ČVUT Prague, Institut Jozef Stefan Ljubljana, Budapest University of Technology and Economics, Paul Scherrer Institute in Villigen.

In the field of cooperation with practice, the institute's employees have long-term cooperation with research institutes and companies ElÚ SAV, v.v.i., Framatome Controls, EBG MedAustron, VÚJE Trnava, Slovenské elektrárne a.s., Joint Research Center in Petten, Centrum Výskum Řež, BEZ Transformers.

Director of the institute	Assoc. Prof. Ing.
	Peter Bokes, PhD.
Employees (FO/FTE)	35/30.9
Professors*	6/6
Associate Professors*	9/9
Senior Lecturers	3/3
Researchers	17/12.9
PhD students	11/6/4
Daily/External/Interruption	

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons





# INSTITUTE OF MULTIMEDIA, INFORMATION AND COMMUNICATION TECHNOLOGIES (IMICT)

In 2024, the Institute guaranteed university studies at all three levels:

- Bachelor study program: Information and Communication Technologies, guarantor Associate Professor Ing. Radoslav Vargic, PhD.
- Master study program: Multimedia information and communication technologies, guarantor Professor Ing. Gregor Rozinai, PhD.
- PhD. study program: Telecommunications, guarantor Professor Ing. Gregor Rozinaj, PhD.

Within the study programs, the Institute of Multimedia Information and Communication Technologies focuses on all aspects of the processing and transmission of multimedia information. Students learn to process and code audio, video and other multimedia signals, design and implement data transmission protocols on all layers of transmission networks, and design complex communication infrastructures.

Selected courses of the bachelor study program are also taught within the faculty for other related study programs of FEI STU. In addition, the institute also conducts the final theses of other study programs, especially the Applied Informatics Program.

As part of the research, the institute is dedicated to the use of the most modern technologies for the design of communication applications of the next generation, such as the coding and transmission of volumetric video for applications such as virtual teleport, the use of multimodal interfaces in smart homes of the future, as well as the design and implementation of current network metallic and

optical infrastructure or terrestrial or satellite wireless communication for the provision of communication services.

The Institute is active in many research and educational projects of national and European importance in a leadership position, in which it achieves excellent results and is considered a reliable and efficient partner. A significant part of the project activity is made up of educational projects, where the employees of the institute actively spread the latest technological innovations in high schools and universities in Slovakia and abroad. Long-term foreign cooperation can include the universities of Czech Technical University Prague, VUT Brno, Dublin City University, National Technical University of Ukraine, TU Vienna and others. As part of cooperation with practice, joint activities with Accenture, Ericsson, ATOS and others can be mentioned.

Director of the institute	Assoc. Prof. Ing. Radoslav Vargic, PhD.
Employees (FO/FTE)	19/15.4
Professors*	4/4
Associate Professors*	6/6
Senior Lecturers	5/2.9
Researchers	4/2.5
PhD students Daily/External/Interruption	10/3/3

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons











# INSTITUTE OF ROBOTICS AND CYBERNETICS (IRC)

In 2024, the Institute guaranteed study in all 3 levels of higher education in the following study programs:

- Bachelor study program: Robotics and cybernetics, guarantor: Associate Professor Ing. Eva Miklovičová, PhD.
- Master study program: Robotics and cybernetics, guarantor: Professor Ing. Jarmila Pavlovičová, PhD.
- PhD. study program: Robotics and cybernetics, guarantor: Professor Ing. František Duchoň, PhD.

The mission of the institute is to carry out and develop educational, scientific, and R&D activities in cybernetics, including automatic control, robotics, human-machine interface, optimization, ICT methods, control systems, signal processing, AI, and intelligent modeling and system management. The National Robotics Center is based here. The institute organizes robotic competitions like Road2FEI and Istrobot. Employees and doctoral students have participated in key European projects on robotics, AI, and digital production, collaborating with institutions such as Finnish VTT, Swedish RISE, Swiss SUPSI, Austrian LCM, Slovenian Pomurski Technološki Park, and German Fraunhofer.

The institute collaborates with Czech universities VÚT Brno, ČVUT Prague, VŠB Ostrava, and foreign universities including Università degli Studi di Napoli Federico II, University Klagenfurt, Wroclaw University of Science and Technology, University of

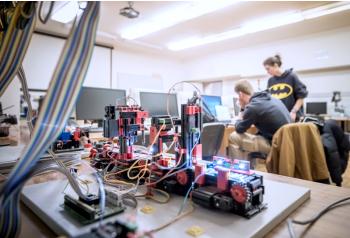
Southern Denmark, University of Ferrara, University of Belgrade, National Technical University of Ukraine, and University of Athens. Memorandums with Korean universities Yonsei University, Jeonbuk National University, and GIST are significant achievements.

Long-term cooperation with companies includes VÚEZ, Airvolute, Matador Group, Siemens, Humusoft, Photoneo, SCHUNK, Sensodrive, Panza Robotics, Spinbotics, Schneider Electric, SICK, Phoenix Contact, Beckhoff, Geotech, S.D.A., Sova Digital, First Welding, Sylex, KIA, Micro-Epsilon, Vonsch, VIPO, Konštrukta TireTech, Conti, Mráz Robotics, IQLOGY, Datalan, Suavinex and others. Medical research cooperation involves the Eye Clinic of SZU and UNB Bratislava, Center for Experimental Medicine (CEM) of SAV Bratislava, LF UK Bratislava, Neurological Clinic of UNB Kramáre, and University Hospital in Martin.

Director of the institute	Prof. Ing. František
	Duchoň, PhD.
Number of employees	32/27.2
(FO/FTE)	
Professors*	4/4
Associate Professors*	8/8
Senior Lecturers	10/7.8
Researchers	15/7.4
PhD students	21/2/4

<sup>\*</sup>Functional position, all data are as of 31.12.2024 FO – natural persons, FTE – recalculated number of persons











# INSTITUTE OF COMMUNICATION AND APPLIED LINGUISTICS (ICAL)

The institute focuses on developing the abilities of faculty students far and wide in the English language in a spectrum of target situations. The teaching concept is based on the requirements of the Council of Europe for teaching foreign languages, the current needs of students and labor market requirements, taking into account the latest developments in foreign language teaching theory, including the introduction of the latest information and communication technologies into the teaching process.

The Institute provides language education primarily to undergraduate and doctoral students in English for Specific Purposes, Communication Theory and Applied Linguistics. Thanks to the Language Café, which the Institute regularly organizes, students of the faculty have the opportunity to informally discuss topics of interest in English. The Communication Practicum course allows students to develop their abilities to clearly express ideas, actively listen and effectively communicate verbally and in writing in various personal, but mainly academic and professional contexts. The course concludes with a poster exhibition, providing students space to present their work to a wider audience. The Institute also offers language education in courses at levels A1 to C1 for teaching, research and administrative staff of the faculty.

The Institute's staff collaborates with domestic and foreign partners to develop scientific research activities and share knowledge in communication, linguistics and didactics. Several invited lectures were held as part of this cooperation. In cooperation with the Slovak Debate Association,

ICAL offered students and faculty staff a lecture and workshop focused on developing critical thinking, argumentation and presentation skills. In cooperation with Middlesex University London, a lecture on digital literacy and digital divides was organized.

The Institute supports an interdisciplinary research approach, combining knowledge from psychology, sociology, computer science, literature and other areas. The publication activities of the Institute's staff include topics such as digitization of teaching, optimization of teaching methods for Generation Z, media literacy, intercultural communication and self-reflection and self-evaluation in foreign language teaching. Members collaborate with colleagues from Constantine the Philosopher University in Nitra, Cyril and Methodius University in Trnava, Comenius University in Bratislava, Pan-European University in Bratislava, and Middlesex University London.

Director of the institute	Mgr. Eva Karasová, PhD.
Number of employees (FO/FTE)	6/5.7
Professors*	0
Associate Professors*	0
Senior Lecturers	6/ 5.7
Researchers	0
PhD students	0

<sup>\*</sup>Functional position, all data are as of 31.12.2024

FO – natural persons, FTE – recalculated number of persons











# TECHNOLOGICAL INSTITUTE OF SPORTS (TIS)

The institute belongs to the faculty among the established pedagogical-developmental-research workplaces with a long tradition. The main mission of the institute is to integrate and creatively develop related and content-related educational, research and development, scientific and other professional activities in the field of Sports Sciences. The Institute professionally guarantees the teaching subjects that it provides within the framework of accredited study programs conducted at the Slovak University of Technology in Bratislava.

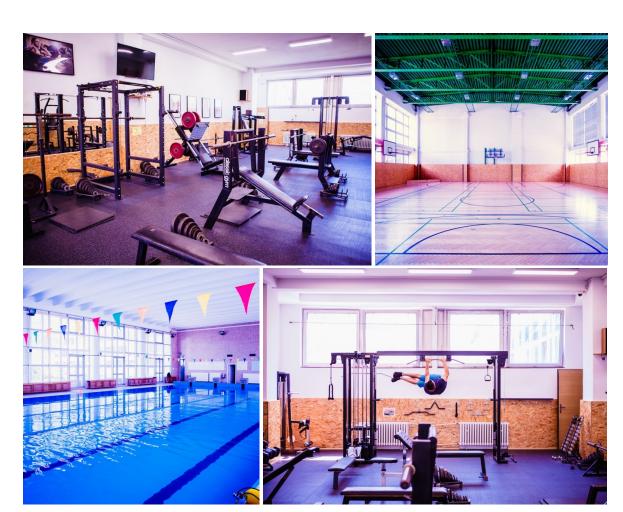
In an effort to support scientific and research activities at the institute, the Sports Diagnostic Center (SDC) was established in 2023. The construction of this center enables the institute to offer students of the second degree an elective subject called "Digitization of sports and rehabilitation" and at the same time improves the possibilities of applying for scientific research projects, on which the institute cooperates with several institutes of the faculty, as well as other professional workplaces. The employees of the institute are helpful in diagnosing and compiling training plans for several sports clubs, sports teams, as well as recreational athletes. Thanks to many years of experience, employees are often involved in medical projects, where they are helpful in improving the quality of life of individual patients. In recent years, electronic sports have seen a great development of the membership base. In an effort to adapt to this trend, we are trying to build the first laboratory in Slovakia at the institute to diagnose esportsmen and propose a methodology for their

testing. The employees of the institute have joined the international structures of several e-sports federations and established cooperation with several foreign universities in the field of e-sports. The institute is trying to build awareness that only a healthy - powerful player can be successful. He is also trying to establish a tradition of organizing several competitions at the faculty, where athletes would compete with each other in "classic physical" and e-sports. Furthermore, efforts are being made to organize several e-sports conferences where experts from this field could exchange their experiences. The mission of the institute's employees is, in addition to teaching Physical Culture, scientific and research activities, operating sports facilities, building proper sports habits and improving the health of students and faculty employees.

Director of the institute	Mgr. Pavel Lackovič, PhD.
Number of employees (FO/FTE)	9/8.25
Professors*	0
Associate Professors*	0
Senior Lecturers	7/ 6.25
Researchers	0
Lecturers	2/2
PhD students	0

<sup>\*</sup>Functional position, all data are as of 31.12.2024

FO – natural persons, FTE – recalculated number of persons





## **EMPLOYEES**

## TOTAL NUMBERS AND STRUCTURE OF EMPLOYEES

The number of faculty employees shows a slightly decreasing trend. The average registered number of employees as of December 31, 2024, was 400.99. In the table, the term "University" refers to both teaching and other staff. The average registered number of full-time equivalent (FTE) employees in 2024 was 348.30, which is, on average, 4.31 fewer than in 2023. Specifically, there was an increase of

4.12 employees in the category of teaching staff, a decrease of 4.81 employees in the category of scientific and research workers, and a decrease of 3.62 employees in the category of administrative, operational, and professional staff. Over the past five years, the average FTE number of faculty employees has remained relatively stable.

	2019	2020	2021	2022	2023	2024
University	279.98	278.80	286.10	274.43	266.21	266.71
- teachers	158.27	157.14	157.86	149.33	141.77	145.89
Science and technology	69.74	71.01	76.80	90.20	86.40	81.59
-involved in projects	6.65	25.33	48.47	57.98	21.80	35.23
Total	349.72	349.81	362.90	364.63	352.61	348.30

## QUALIFICATION GROWTH OF EMPLOYEES - AGE STRUCTURE

The age structure of creative workers at the faculty in 2024 is comparable to previous years and can be considered balanced. The number of teaching staff under the age of 50 was 92, which represents more than 59% of the total number of teachers. The average age of teachers is 48 years. The percentage representation of female teachers is 21%.

The share of scientific and research workers under the age of 50 represents more than 79%.

The average age of scientific and research workers is 41 years.

The table shows the representation of teaching staff from the total physical number of 157 who worked at the faculty as of 31 December 2024.

Age (years)	Professors	Associate Professors	Senior Lecturers	Lecturers	Junior Lecturers	Total Teaching Staff	Researchers
under 30			8	0		8	31
between 30 – 40		11	19	0		30	45
between 40 – 50	5	24	22	1	2	54	26
above 50	25	23	17	0		65	26
Total:	30	58	66	1	2	157	128

Number of creative workers at the faculty as of 31 December 2024

### NEW ASSOCIATE PROFESSORS AT FEI STU



Associate Professor Ing. Tomáš Páleník. PhD. During his professional and pedagogical practice, he deals with the issue of selfcorrecting codes for information protection in digital communication systems. He habilitated in the field of Telecommunications,

and the topic of his habilitation thesis was a contribution to the field of LDPC codes and their use in communication systems. He was appointed as an Associate Professor by the Rector on 26 August 2024. As a teacher, he is dedicated to the subject of IPv6 and the Internet of Things, for example.



Associate Professor Ing. Richard Balogh, PhD. is an expert in the field of mobile robotics. He habilitated in the field of Mechatronics, and the topic of his habilitation thesis was the use of mobile robotics in the educational process. He was appointed as an associate professor by the Rector on 26

August 2024. As a teacher, he deals with subjects such as Computer Basics such as Modeling and Control of Nonlinear Mechatronic Systems, or Advanced Information Technologies.



Associate Professor Ing. Jana Paulusová, PhD. is an expert in the field of automatic control theories and neuro-fuzzy systems. She habilitated in the field of Cybernetics, and the topic of her habilitation thesis was selected methods of system control. She was appointed as an associate

professor by the Rector on 3 April 2024. As a teacher, she is dedicated to subjects such as Numerical Control, Applied Mathematics, or Automatic Control.



Associate Professor Ing. Pavol Bisták, PhD. is an expert in the field of automatic control, mechatronics, and computer-aided learning. He habilitated in the field of Mechatronics, and the topic of his habilitation thesis was PID controllers with higher order of derivation in the form of virtual

laboratories. He was appointed as an associate professor by the Rector on 3 April 2024. As a teacher, he is dedicated to the subjects such as Modeling and Control of Nonlinear Mechatronic Systems and Advanced Information Technologies.



Associate Professor Ing. Katarína Sedlačková, PhD. has been involved in materials research during her professional and pedagogical practice. She habilitated in the field of Physical Engineering, and the topic of her habilitation thesis was the detection of ionizing radiation

and its use in materials research. She was appointed as an associate professor by the Rector on 15 January 2025. As a teacher, she is dedicated, for example, to the subject Physical Foundations of Computer Games.



Associate Professor Ing. Vladimír Kršjak, PhD. is an expert in the field of materials research. He habilitated in the field of Physical Engineering, and the topic of his habilitation thesis was a comprehensive approach to researching materials for harsh radiation environments. He was

appointed as an Associate Professor by the Rector on 15 January 2025. As a teacher, he is dedicated to subjects such as Nuclear Facilities.



Associate Professor Ing. Mária Hypiusová, PhD. is an expert in automatic control, linear system control, and robust control. She habilitated in the field of Mechatronics, and the topic of her habilitation thesis was control of mechatronic systems using modern methods and advanced LMI

control approaches. She was appointed as an Associate Professor by the Rector on 15 January 2025. As a teacher, she is dedicated to subjects such as New Methods of Automatic Control Theory, Fuzzy and Neural Controllers, or Theory of Large Systems.



Associate Professor Ing.
Martin Ernek, PhD. is an expert in the field of automatic control, mechatronics, and computer-aided learning. He habilitated in the field of Cybernetics, and the topic of his habilitation thesis was modeling and control of synchronous generators of the

Mochovce nuclear power plant (EMO 1). He was appointed as an Associate Professor by the Rector on 15 January 2025. As a teacher, he is dedicated to subjects such as Dynamics of power systems or Industrial IoT.

## **WORKING CONDITIONS**

### BENEFITS FOR EMPLOYEES

In 2024, starting with the summer semester, the faculty created conditions to start providing its employees with above-standard employee benefits. These are managed by both institutes of the faculty and are available during the teaching period each semester. The Institute of Communication and Applied Linguistics provides English for employees, and the Technological Institute of Sports takes care of their physical fitness by offering sports benefits. English is provided not only for the academic community, but courses have also been created for non-academic staff. In total, 6 terms are available weekly, divided by level and target group. Since the composition of groups has stabilized over the year, the effort is to provide a given course every semester on the same date, so employees can appropriately adjust their teaching and other obligations without conflicting with the course.

Number of terms	English course type	Level
2	English for teachers and researchers	B2 - C1
2	English for teachers and researchers	B1 - B2
1	English for administrative workers	A2 - B1
1	English for administrative workers	A1 - A2

Sports benefits consist of several offered activities, from which employees and doctoral students can choose two for a given semester. In the winter semester of 2024, the range of activities was slightly expanded compared to the previous semester by additional activities and dates based on employee demand. Each week, 8 different activities were available in a total of 20 dates, with an instructor present in 9 of them. The standard length of a date is 1 hour, with the exception of the sauna, which lasts 1.5 hours, and badminton with a 2-hour duration. Interested parties reserve individual dates via the online reservation system. Due to the fact that slight adjustments to the student schedule occur at the beginning of each semester, the schedule of activities for employees is published only after the student schedule has stabilized.

Activity	Total number of terms	Terms with instructor
Swimming pool	2	2
Gym	4	1
Climbing wall	5	1
Badminton	2	0
Sauna	2	0
Compensation exercises	2	2
Yoga	1	1
Sports diagnostics	2	2

#### INFORMATION AND COMMUNICATION TECHNOLOGIES

FEI STU in Bratislava has a modern information and communication infrastructure, the modernization of which was completed in December 2023. As part of it, a new faculty data center and a modernized backbone network were built, which allows for redundant connection of all institutes and faculty workplaces to the faculty backbone network at a speed of 10 Gbit/s with subsequent connection to the SANET network and to the Internet at a speed of 100 Gbit/s. Therefore, during 2024, only some minor improvements to the IT infrastructure were implemented, the aim of which was to improve the computing equipment and infrastructure of the faculty. In order to improve the teaching possibilities of students, 40 new All in one computers were installed in the Central Computer Room, two 65' TV receivers in the BC 35 and CD 35 classrooms, the sound system of the Central Computer Room was implemented, and a new multifunctional color printer was purchased for the Student Affairs Department.

In 2024, the premises of the Office of the Dean were renovated, during which two data distribution boards, UPS backup power supplies and LAN switches were installed. Another distribution board, switch and backup power supply were installed in the reconstructed dining room. 14 AiO computers, 2 PCs and 8 laptops were also purchased for the Dean's Administration. Students, employees and visitors to FEI STU can take advantage of wireless connectivity in lecture rooms

and common areas premises throughout the FEI STU building. In 2024, several access points were upgraded and a new multigigabit switch was installed, which will allow full use of the latest Wi-Fi 6 standard.

As part of the modernization in 2023, a significant modernization of the telephone network was carried out, in which the original telephone exchange was replaced with a modern solution using IP telephony. The new software exchange allows employees greater comfort and flexibility in terms of voice communication options. Employees can use classic hardware VoIP telephones or their software version for communication, which, together with good coverage of the FEI STU premises with a wireless Wi-Fi network, brings them new communication options.

In 2024, 70 VoIP telephones were purchased for this purpose and distributed to individual workplaces. In 2024, a significant decision was made to end the use of the shared cloud with FIIT STU and to build a new cloud on the premises and under the management of FEI STU. A pilot project was implemented during the year, and by the end of 2024, the vast majority of virtual computers had been migrated from the old cloud to the new cloud. Once completed, the new cloud will enable flexible and cost-effective provision of computing resources for the needs of the faculty and its institutes.

## PEDAGOGY

According to the number and quality of graduates so far, the faculty is among the most important in higher education in Slovakia. Currently, among STU faculties, it ranks second in number of students (2,365), first in graduates (487) in 2023/24 and first in admitted students (1,323) for the first degree in 2024/25.

Also in 2024, several hundred graduates left the faculty – bachelors, engineers, and doctors qualified in accredited programs. Graduates in informatics, ICT, robotics, mechatronics, electric

and nuclear power engineering, electronics and electrical engineering are employed without problems in Slovak and global labor markets. Nearly 100% are employed immediately after finishing school, while demand for graduates is still growing. Faculty graduates have one of the highest average salaries in the Slovak economy. Another motivation to study at FEI STU is the humane approach of teachers and staff, and the faculty's success in obtaining foreign projects and modern laboratory equipment.

### ACCREDITED STUDY PROGRAMS

The faculty provides and organizes higher education in accredited study programs in accordance with the law and relevant internal regulations of STU and FEI STU. In the bachelor's and master's studies, education is provided on a full-time basis, in the study program Applied Mechatronics and Electromobility in master studies, education is also provided by distance learning. In all study programs of doctoral study, education is provided in full-time form, in the Applied Mechatronics and Electromobility study program of the engineering study, education is also provided via distance learning. In the doctoral study programs, education is provided both in full-time and part-time form. The faculty has a

recommended study plan for each study program, which determines the time and content sequence of subjects and the forms of assessment of study results. The study programs are compiled so that students can complete academic mobility in them. All study programs are accredited in one of three departments: Informatics (IT), Electrical Engineering (EE) and Cybernetics (CY) based on the content, which mainly characterizes the areas and scope of knowledge, skills and competencies that profile the graduate. Most studies were conducted only in the state language, which is Slovak, but students within various exchange programs, or other foreign students, for whom teaching was conducted in English, also studied at the faculty.

## **BACHELOR STUDY PROGRAMS**

The faculty offers 8 bachelor's study programs. All study programs are accredited in the Slovak language. Bachelor's study programs have a standard length of study of 3 years. Graduates of these programs receive a bachelor's degree (Bc.) and can go to work or continue their studies in one of the master's study programs. Most graduates choose the second option, a minimum of them go into practice.

Study program	Field of
	study
Applied Informatics	IT
Automotive Mechatronics	CY
Power Engineering	EE
Electronics	EE
Electrical Engineering	EE
Information and Communication	IT
Technologies	
Nuclear and physical Engineering	EE
Robotics and Cybernetics	CY



## MASTER STUDY PROGRAMS

The faculty offers 9 master's study programs in the same fields of study as in the bachelor's studies. All study programs are accredited in the Slovak language. In the academic year 2024/25, the study programs Space Engineering and Electronics and Photonics in the English language were also opened in the master's study programs have a standard length of study of 2 years. Graduates of these programs receive the title of engineer (Ing.) and can apply in practice or continue their studies in one of the doctoral study programs.

Study program	Field of
Study program	study
Applied Electrical Engineering	EE
Applied Informatics	IT
Applied Mechatronics and	CY
Electromobility	Ci
Power Engineering	EE
Electronics and Photonics	EE
Nuclear and Physical Engineering	EE
Space Engineering	EE
Multimedia Information and	IT
Communication Technologies	""
Robotics and Cybernetics	CY



## **DOCTORAL STUDY PROGRAMS**

The Faculty offers 10 doctoral study programs with the language of instruction being Slovak or English. Of these, 9 are full-time or part-time. The Space Engineering program is offered full-time. Study programs are offered in the same fields of study as in the bachelor's and engineering degree programs. Doctoral study programs have a standard duration of 3 years full-time and 4 years part-time. Graduates of these programs receive the title of Doctor (PhD.).

Ctudy program	Field of
Study program	study
Applied Informatics	IT
Electrical Engineering	EE
<b>Electronics and Photonics</b>	EE
Physical Engineering	EE
Nuclear Power Engineering	EE
Space Engineering	EE
Mechatronic Systems	CY
Measurement Technology	EE
Robotics and Cybernetics	CY
Telecommunications	IT

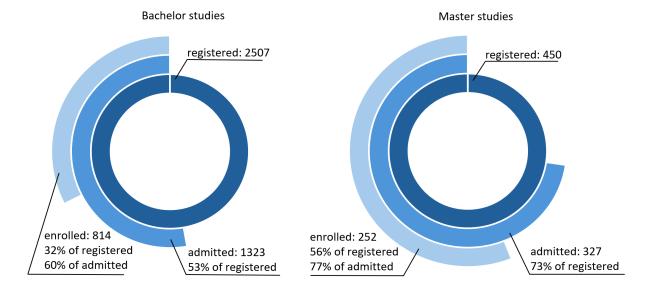


# APPLICANTS, STUDENTS AND GRADUATES

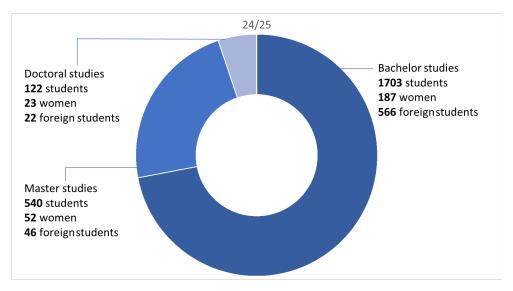
### ADMISSION PROCEDURE

The admission procedure for bachelor's, master's and doctoral studies at the faculty for the academic year 2024/25 was carried out in accordance with the applicable legislation and internal regulations of STU and FEI STU. 62% of admitted applicants enrolled in bachelor's studies. 77% of admitted

students enrolled in master's studies, which is the lowest number of students enrolled in master's studies in recent years. 9% of those enrolled were foreign students and 15% from other faculties/universities in Slovakia.



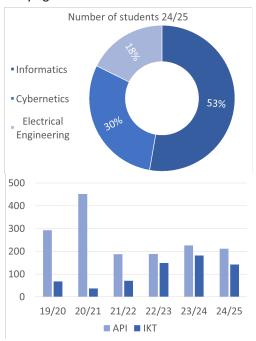
# TOTAL NUMBER AND STRUCTURE OF STUDENTS



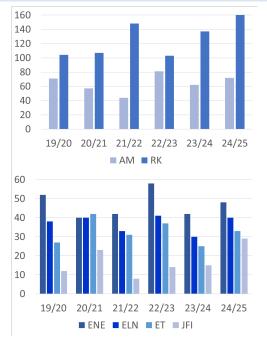


### BACHELOR STUDIES - NUMBER AND STRUCTURE OF STUDENTS

Within the framework of bachelor's studies, the faculty has the highest number of students compared to other degrees, but in this degree we have recorded the highest decrease of students for a long time. The faculty is trying to reverse this trend with various activities, such as student teaching student initiative. The numbers of newly admitted students over the last 6 years show long-term increased interest in study programs in computer science and cybernetics. On the contrary, interest in study programs in electrical engineering is decreasing, which may be caused by less interest in studying technical fields.



Study program	Number of students 2024/25
Applied Informatics (API)	551
Automotive Mechatronics (AM)	148
Power Engineering (ENE)	106
Electronics (ELN)	92
Electrical Engineering (ET)	59
Information and Communication Technologies (IKT)	347
Nuclear and Physical Engineering (JFI)	44
Robotics and Cybernetics (RK)	356
Total	1703

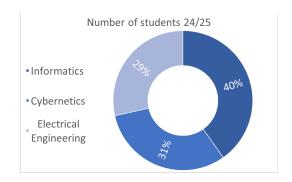


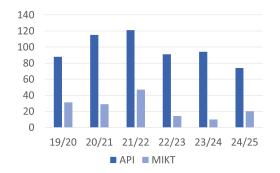
### MASTER STUDIES - NUMBER AND STRUCTURE OF STUDENTS

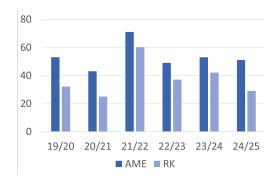
The number of master's students does not change significantly in the long term. The deviations are caused by the turnover of bachelor's degree graduates at the faculty. The reduction of the number of successful graduates of the 1st year and the total number of masters is also influenced by a newly introduced criterion when students must obtain a minimum number of credits after the 1st semester. In previous years, the student dropout rate after the first semester and the first year was approximately 5%. In the academic year 2023/2024, it increased to about 9.5%. In the master's level of study, the number of newly admitted students to the API study program was the lowest in the past six years. The low number of new admissions in the MIKT program is due to the low number of successful graduates at the bachelor's level in the IKT program. However, with the growing interest in this study program, an increase in the number of applicants for the MIKT program can be expected. The low number of

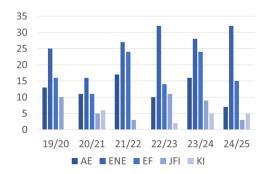
students in study programs in the field of electrical engineering is also influenced by the insufficient interest in bachelor's studies in this field.

Study program	Number of students 2024/25
Applied Electrical Engineering (AE)	25
Applied Informatics (API)	187
Applied Mechatronics and Electromobility (AME)	100
Power Engineering (ENE)	70
Electronics and Photonics (EF)	35
Nuclear and Physical Engineering (JFI)	14
Space Engineering (KI)	10
Multimedia Information and Communication Technologies (MIKT)	30
Robotics and Cybernetics (RK)	69
Total	540





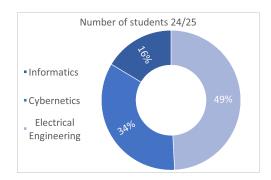




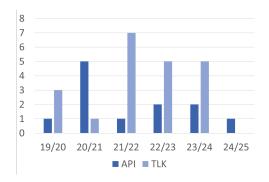
## DOCTORAL STUDIES - NUMBER AND STRUCTURE OF STUDENTS

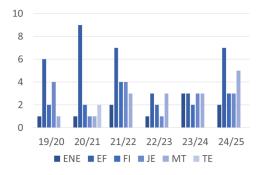
The number of doctoral students, similar to the master's level of study, has not changed significantly over the past years. Interest in studies is influenced by several factors, such as the amount of the scholarship, the standard length of study, but also the topics offered and the financial capacities of the institutes. The interest in doctoral studies in the academic year 2024/25 was in the range of 2 to 9 newly admitted students per study program. The total number of 1st year enrolled students is 37. In the last two academic years, there have been no significant decreases in the number of admitted applicants.

Study program	Number of students 2024/25
Applied Informatics (API)	7
Power Engineering (ENE)	6
Electronics and Photonics (EF)	22
Physical Engineering (FI)	9
Nuclear Power Engineering (JE)	7
Space Engineering (KI)	2
Mechatronic Systems (MS)	19
Measurement Technology (MT)	14
Robotics and cybernetics (RK)	23
Telecommunications (TLK)	13
Total	122





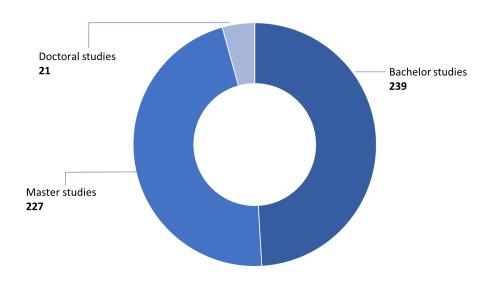




### **GRADUATES**

An important indicator of education at the faculty is also the number of graduates of individual degrees of study. Graduates received education in the broad field of research, development, design and construction of electrotechnical equipment, mechatronic systems, control, measurement and diagnostic systems, design and use of information systems, in electric power practice, operation and decommissioning of nuclear power plants, robotics and artificial intelligence.

Similar to our students, graduates can also evaluate the course of their studies and the acquired knowledge, skills and competencies, as well as their readiness for practice, after the end of their studies. So far, however, the sample of graduates participating in the evaluation is insufficient. After the end of their studies, all graduates have the opportunity to stay in touch with FEI STU through membership in the Association of Alumni and Friends of FEI STU.



## **FURTHER STUDY ACTIVITIES OF STUDENTS**

### STUDENT MOBILITIES

In the academic year 2023/24, students of the faculty were sent on mobility to 24 countries, mainly to Germany and the Czech Republic. Students were accepted for mobility in each country. Other favorite countries are Croatia, Denmark, Hungary, Ireland Italy and Norway. Students from 9 countries were accepted for mobility, e.g. from Spain, France and Turkey. The number of students from our faculty who have travelled abroad is still low, but in the past academic year the number increased due to the increased interest of doctoral students in short-term internships. As part of the Erasmus+ program,

which focuses on the mobility of students and teaching staff, the faculty had 71 agreements with partner universities by the end of 2024. This is an increase of 14 agreements compared to the previous year, and no agreement has expired or been terminated. In addition to agreements with countries that are partners of the Erasmus+program, we have also concluded agreements with South Korea and Ukraine. The list of partner universities with which the faculty has signed an agreement under the Erasmus+ program is in the appendix.

Mobility program (sent/admitted)	2021/22	2022/23	2023/24
ERASMUS+	32/16	27/27	58/28
NŠP	0/0	0/1	0/1
CEEPUS	0/2	1/0	0/1
Outside mobility programs	0/0	2/0	6/0
Total	32/18	30/28	64/30

#### STUDENT CONFERENCES

In the academic year 2023/24, two faculty-wide student conferences took place. The first was ŠVOČ (student scientific and special activity) for 1st and 2nd-degree students, where 36 contributions were

presented in 6 thematic sections. In the 3rd-degree of study, the ELITECH conference was organized, where 22 contributions of our doctoral students were included in five sections.

### STUDENT TEACHES STUDENT

The project is primarily aimed at students of the faculty who are unable to meet the required conditions for successfully completing the Mathematics course in the first three semesters of the bachelor's degree in the standard teaching method. The potential of excellent students in higher grades is used, who lead small groups of students in individual education under the supervision of selected teachers. The project included subjects 1. The MAT1E and MAT1 study, the number of students involved were 33 and 54.

Of the tutored students, the Mat1E subject was 27.3% and the subject MAT1 57.4%. In addition to the items of the 1st year, tutoring in the subject MAT3 was also opened. This subject was successfully completed by 40 students out of 42 who participated in the tutoring. Based on demand from students, this year, in addition to mathematics, the subject - physics - was also included in the project. The overall success rate of the project can be evaluated from statistical data from several consecutive academic years.



### SUPPORT OF SPORTS ACTIVITIES

The Technology Institute of Sport (TIS) also provided a methodological and pedagogical patronage of the mandatory subject of physical culture (TK) for 1st-3rd year FEI STU students. In addition, it created a favorable environment for the performance of up to 14 sports activities for students of higher years (2nd-5th year). TIS Teachers have created training plans for different levels of athletes - from amateurs, beginners, advanced, but also for sports representatives so that as many students as possible can be involved in Physical Culture. Students who have been competitively involved in basketball, volleyball, football or floorball and students with excellent skills in these sports have a selection TK. Subsequently, in the evening, together with the teachers - coaches, they participate in the university leagues, where they successfully represent FEI STU. The most important sports event in 2024 was the Summer University of the Slovak Republic, where almost 700 athletes measured their strength in one or more disciplines. Also in 2024, there was a great interest not only in the ranks of students in several ski stays in the French Alps as well as in Slovakia, where the participants improved their skiing technology under the professional supervision of instructors from TIŠ. March 2024 there was a "FEI Makačka", an almost 3-hour exercise marathon of fitness and fitness

exercises designed not only for FEI STU students. 70 students attended the event.

FEI STU participated in April with her team in the National Run Devín-Bratislava where she won the 2nd place among the teams. Every year, the TIŠ is announcing and, in cooperation with the FEI management, evaluates the competition for the FEI T -shirts logo and helps students with preparations for running.

The cycling trip from Trieste via Slovenia to Poreč was another successful sports and social event with a high participation of 30 participants. The tradition of teambuilding events for the FEI STU employees called "Sports Games FEI STU" was preserved this year, and the participants measured their strength in various knowledge and sports competitions, this time in Istria.

Like every year and in 2024, employees and students of FEI and FIIT STU were involved in the Christmas badminton tournament and doubles. The FEI STU university club (VŠK) offers students and employees advantageous opportunities to attend TIŠ sports facilities, and they also use it actively. As far as possible, TIŠ employees are trying to expand sports offers and improve the premises and conditions for sports through VŠK. Some students receive year -round or half -year entry to the TIŠ sports facilities for free as a win in the sports competition organized by TIŠ or for participating in a selected project or event.

### STUDENT SUPPORT

Student support is implemented at the faculty in various areas. From the point of view of the studio, support is provided through the staff providing service for the administration of the studio, accommodation, scholarships, social support, etc. Study support is provided at the faculty and institutional level through pedagogical and career

advisors as well as the teachers themselves. For the needs of psychological counseling, students have the opportunity to communicate with the STU Counseling Center. Other social activities are organized in cooperation with student organizations.

#### STUDENT ORGANIZATIONS

STUDENT PARLIAMENT OF STUDENTS OF ELECTRICAL ENGINEERING AND INFORMATICS OF STU

The Student Parliament of STU is a student civic association that represents a dynamic group of students who are full of energy and interest in enriching social life at the faculty. This association, known for its active approach to organizing various events, strives to create bridges between students and faculty management, as well as between students.

Among the key events organized by the association are Beania of Technicians, FEI grill party, FEIstival, Matriculations of freshmen, FEI blood drop and many others. The association also contributes to the organization of the FEI STU Open Day and the FEI JobFair. Their activities also include the RoadShow project and active participation in university fairs.

The association regularly organizes social game evenings and chess tournaments at the faculty and dormitory. In the premises of the Mladosť student

dormitory, Junák operates a gym, where it organizes powerlifting and ping pong tournaments.

The student association also acts in the role of the so-called student advisor. The student advisor focuses on organizing tutoring for students by students and provides teaching materials to younger students. Manages social networks for students in order to make their mutual communication more efficient during the semester and vacations. It also helps new Ukrainian students connect with older students and integrate into the collective.

The association tries to fund its activities mainly in the form of cooperation with partners.

www.speai.sk









### STUBA GREEN TEAM

SGT is the only team in Slovakia that represents its university and country at Formula Student Electric international student engineering competitions. The aim of the competitions is for students to acquire skills in the fields of technical analysis, engineering design, production and construction, develop teamwork, time management, project

management, budget planning and presentation skills and thus gain important experience for their future careers.

Student teams are tasked with designing and constructing a racing single-seater, while adhering to strict rules and deadlines. The competition is divided into several disciplines, both static and

dynamic. It is not only speed that matters but also engineering design and well-thought-out decisions. Within the team, the work is divided into four divisions.

Mechanical Division — oversees the design side of the mono-post. It deals with disciplines such as drive transmission, suspension and chassis, aerodynamics, cooling or steering and ergonomics. Electrical division — covers the design, installation and programming of electronic components, motor control and battery development and construction. Driverless division — is one of the team's biggest challenges recently, its task is the development and implementation of autonomous formula control, sensory perception, data processing, localization

and mapping, trajectory planning, motion control, and the attachment of sensors and actuators.

The organization owes the team's success not only to diligent students, but also to partners and sponsors who help with finances and materials. Communication and the overall presentation of the team to the outside is the task of the Division of External Relations, which creates space for students to develop so-called soft skills.

Since the founding of the team in 2009, it has been possible to construct 9 electric single-seaters. Currently, the captain of the team is our student, Patrik Knaperek.

www.sgteam.eu





### TLIS RADIO

TLIS is a student dormitory radio studio operating since 1981. Its content is the production of quality radio broadcasts focused on the alternative music scene, student life and the field of culture and art. With their genre focus, dramaturgy, music selection and length of activity, they are a unique phenomenon in the Bratislava region. When selecting radio broadcast topics, they are not limited by commercial interests or control from the state or other organizations. Student radio is known to the faculty for its flexibility and willingness to participate in faculty activities.

Thanks to its activity and presence at events, the radio not only supports student life at the faculty but also helps build a strong community

List of other organizations: www.fei.stuba.sk/studentske-organizacie

atmosphere. The radio thus significantly contributes to the enrichment of student life and provides a platform where students can develop their communication and technical skills.

Another of the main tasks of the student radio is the production of faculty podcasts. These podcasts offer insight into a variety of topics – from academic news to scientific discoveries, to student stories. In this way, the radio covers the entire process from content preparation and moderation to its recording and distribution. This approach allows students to gain practical experience in media and communication.

www.tlis.sk





## SCHOLARSHIPS AND LOANS

The faculty provides its students with scholarships from the state budget as well as scholarships from their own resources. Social scholarships in the academic year 2023/24 received 33 students, which is 1 less than in the previous academic year. The faculty provided students with 37 fewer motivational trade unions in the academic year 2023/24, but € 13,749 more. It provided 39 less scholarships from her own resources, but € 16,593 more than in the academic year 2022/23. Business scholarships are awarded by companies on the basis of a contract with the faculty. Other scholarships are presented in the table below. In the academic year 2023/24, the Fund for education support did not provide information on loans to students within the faculty.

Scholarship	Number of students	Sum provided in €
Pregnancy	1	2000
Motivational field-of study	704	351 919
Merit	154	94 475
Motivational for exceptional academic results	49	12 637
From own resources	175	68 720
For talented students	94	278 000
Company	6	2 500



## LIFELONG LEARNING

The faculty offers not only in the 1st, 2nd or 3rd degree of university studies, but also lifelong learning courses. The offer includes programs for individuals and collectives in companies. As part of these courses, expert lectures are provided by our employees and lecturers from other institutions.

Courses take place face-to-face, as well as distance learning in a virtual form. Some of the courses are accredited. An overview of the lifelong learning courses offered in 2024, provided by the faculty, along with basic information is in the table.

Course name	Accreditation	Number of hours	Number of courses	Number of participants	Number of graduates
Safety aspects of operating nuclear installations	-	181	1	13	13
Installation of biomass boilers and furnaces	0473/2019/19/2	32	1	16	16
Installation of photovoltaic and solar thermal systems	0473/2019/19/1	36	1	43	43
Periodic training of control physicists SE (EMO+EBO)	-	80	4	16	16
General expertise - Professional minimum	Ministry of Justice SR	34	1	8	8
Total	accredited not accredited	68 295	2 6	59 37	59 37

# SCIENCE, RESEARCH AND COOPERATION WITH PRACTICE

The leading directions of science development at the faculty are electrical engineering, electronics, nuclear physics and technology and their applications, information and communication systems and technologies, robotics, cybernetics, automation, electric power and nuclear power, applied and automotive mechatronics or materials research. The research topics are in line with the Slovak Republic's research and development priorities, such as the National Research,

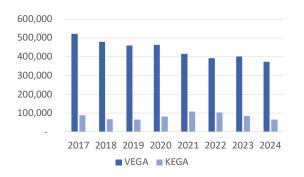
Development and Innovation Strategy until 2030 and the Research and Innovation Strategy for Intelligent Specialization of the Slovak Republic 2021 – 2027 (SK RIS3 2021+). With its results in the field of science and research, the faculty has been confirming its position as a top scientific institution for a long time and, in terms of success in obtaining foreign grants, it continues to maintain an excellent position within Slovakia.

### **PROJECTS**

The Faculty is involved in working on projects within the framework of the challenges of the Scientific Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic and the Slovak Academy of Sciences (VEGA), the Cultural and Educational Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic (KEGA), the Slovak Research and Development Agency (APVV), as well as other types of

challenges. Within the domestic projects VEGA and KEGA starting in 2024, the success rate reached up to 50%. As part of the VEGA, KEGA, and APVV challenges, the faculty solved a total of 94 domestic projects in 2024. Of these, there were 27 VEGA projects, 6 KEGA projects, and 32 APVV projects. It is involved in solving projects within the Horizon 2020, Horizon Europe, Euroatom, COST, IAEA and FP7 challenges. A total of 43 foreign research projects were handled by the faculty in 2024.

### DOMESTIC RESEARCH PROJECTS



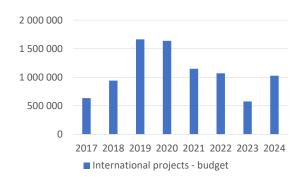
Domestic research projects are the basis of support for science and research at the faculty. There is a wide range of fields of research and among interesting topics we include, for example, the "Postquantum cryptography project resistant to lateral channels" led by the Professor Zajac (ICSM) or "The diagnostic telemedical system for automated monitoring of blood pressure by using miniature IoT devices and neural networks" led by Professor Kuzma (IEP). The grant agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic in 2024 included projects "Shading of radioactive materials in nuclear facilities and medicine" led by Professor Nečas and "Development and implementation of



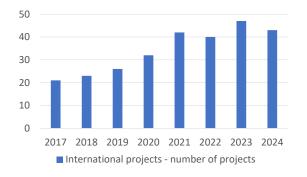
energy pickers" led by Professor Stopjakova to projects with significant results.

The Cultural and Educational Grant Agency of the Ministry of Education of the Slovak Republic (KEGA) described as excellent projects with a societal impact of the projects "MONED - Modern Trends and New Technologies of Online Education in ICT study programs in the European Educational Area" led by Professor Rozinaj and "The use of progressive forms of education in the preparation of new educational programs in the field of optical wireless technologies" led by Associate Professor. Róka (IMICT).

### INTERNATIONAL RESEARCH AND NON-RESEARCH PROJECTS



International projects are not only a source of support for science and research at the faculty, but also a sign of international recognition in the field of science and prestige. International research projects are dominated by projects from Horizon Europe, such as. The project "Innovative construction materials for cleavage and fusion" (Assoc. Prof. Kršjak, INPE) or "The first and European eight -inch pilot line for silicon carbide" (Assoc. Prof. Chvála, IEP). Thank to Prof. Zajac the

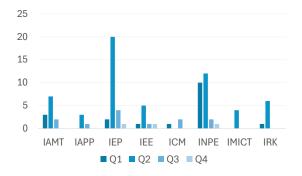


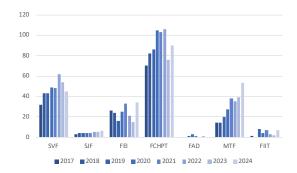
faculty also participated in the solution of the project of the North Atlantic Alliance (NATO) project entitled "Safe communication through classical and quantum technologies and Doc. Valko led the project "Space Engineering through (real) training" from the European Space Agency. Among the major international projects include the project "Digital transformations to support the work of the new generation" led by Prof. Rozinaj (IMICT) that is solved within the Erasmus scheme.

#### **PUBLICATIONS**

For the evaluation of science and research, as well as for the university evaluation, the outputs in scientific periodicals registered in the world citation databases are fundamental. The number of records of individual STU faculties in the last 8 years indexed in the Web of Science database in Quartil Q1, as well as Q1 publications to Q4 published by individual faculty workplaces last year are shown in graphs. Exceptional publications include, for example, the work "Transformation of industrial automation: control of voice recognition through a container PLC device", from the authors team led by Lukáš Beňo (IAMT). The work was published in Scientific Report (a daughter magazine of the prestigious Science magazine). This research is exceptional for its integration of voice assistants with industrial PLC devices through containerized

IoT architecture, which represents an innovative approach to the human-machine interface in industrial automation in accordance with industry paradigms 4.0 and 5.0. The second publication, which is worth mentioning "Estimate of the potential of roof photovoltaics in urban scale using software with open source and public GIS data" from the authors team led by Matei Cenký (IPAEE) published in the magazine Smart Cities. This scientific study is exceptional for its comprehensive approach to estimate the potential of photovoltaic systems on the roofs using exclusively open-source software and publicly available GIS data, including detailed analysis of shadows of buildings, providing a scalable and transparent solution in the area where the methodology is often hidden in commercial "black boxes".





### SCIENTIFIC AND OTHER MASS EVENTS ORGANIZED BY THE FACULTY

In 2024, the Institutes and the Faculty participated in the organization or organized several events themselves. These included traditional conferences for students and PhD students ŠVOČ and ELITECH, as well as larger events than ADEPT 2024 (12th International Conference on Advances in Electronic and Photonic Technologies), APCOM 2024 (29th International Conference on Applied Physics of Condensed Matter) International seminar on wireless communications, several invited lectures, Istrobot, Road2fei or the Open Door Day and Job fair. Several excursions for students have also been organized, such as Volkswagen factory or Onsemi Slovakia. The faculty was also co-organizer of the OpenSlava2024 event, Night of Chances IT 2024 and Science-eterTainment yoU! 2024.





### COOPERATION WITH PRACTICE

### PROJECT COOPERATION WITH PRACTICE

In 2024, 19 projects were dealt with at the Institutes of the Faculty, in which the partner was an unacademic subject from practice. Overall, 18 entities were involved in project cooperation with the Faculty.

Significant results were achieved in cooperation with Sfera, a.s. and T-Industry, s.r.o. achieved in the APVV-20-0157 project- "Effective interconnection of energy systems using advanced open technologies", whose responsible leader was Professor. Ing. František Janíček, PhD. Based on the results of the project, two commercial patterns in Slovakia were created: the system interconnection of energy elements and the method of linking, Application No.: 179-2024; Wiring cloud for processing IoT data in the energy system, especially within existing frameworks, Application No.: 181-2024. As a project output, one utility pattern was filed in the Czech Republic "Interconnection system of elements mainly with a cloud platform" Another project output was a scientific monograph published in a foreign publishing house: "Modern power systems and their interconnection", (Verlag Dashöfer, Ljubljana, 2024. 194 p. ISBN 978-961-6869-72-0.)

Remarkable results were also achieved in cooperation with Airvolut, s.r.o., as they also created a utility model for a device for obtaining a global position and orientation of the mobile robot in an industrial environment where it is not possible to use a global location system. The device consists of a magnetic surface on the back and a pair of frame marks with a known layout on the front. The advantage of the proposed technical solution is to improve the accuracy, robustness and speed of the robot location, while the solution remains simple and can be used in most environments.



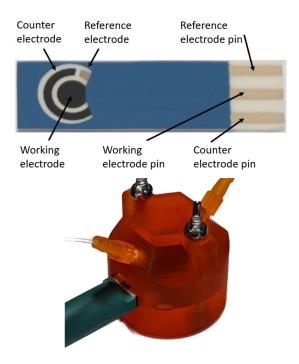
### **BUSINESS ACTIVITY**

In 2024, the Faculty institutes carried out a certain service or agreed activity for 38 practice entities. It was predominantly accredited tests of electromagnetic compatibility (EMC), courses, training and periodical preparation, expert activity, advice and technical solutions to the tailor-made.

Institute	Number of services and activities provided
IAM	1
IEE	22
IPAEE	2
IEP	5
ICSM	0
INPE	8
IMICT	1
IRC	2
Total	41

An interesting result of the business activity carried out by the Institute of Electronics and Photonics is the development and production of innovative electrochemical electrodes from the boron of the doped diamond layer (BDD) for entities engaged in environmental monitoring, industrial processes or biomedical diagnostics. Thanks to advanced manufacturing techniques such as the chemical deposition from the gaseous phase (CVD) and optimization of electrode printing, compact and cost-effective sensors, which excel in high stability, resistance and accuracy of measurements, are able

to produce. They can detect toxic substances, heavy metals or biologically active molecules in various samples - from wastewater to clinical materials. These technologies are also used in the area of smart sensors and IoT systems where they allow automated data collection and processing. Research in this area opens up new opportunities not only for industrial partners, but also for the development of sustainable environmental and health care solutions.



# STUDENT THESES SOLVED IN COOPERATION WITH PRACTICE

In the academic year 2023/24, 30 bachelor's theses and 41 diploma theses were solved at the faculty in cooperation with 28 subjects from practice. Most topics were solved with the companies VÚEZ a.s. (6), NETGRIF, s.r.o. (5), Airvolute s.r.o. (5), ESET, s.r.o (4) and Sigma Services Pty Ltd (4).

Institute	Number of BT	Number of DT	Total
IAM	0	6	6
IEE	0	0	0
IPAE	0	1	1
IEP	3	2	5
ICSM	15	12	27
INPE	0	1	1
IMICT	0	1	1
IRC	12	18	30
Total	30	41	71

# LECTURES FROM PRACTICE

In 2024, representatives of 35 practice subjects gave 47 lectures for students in 31 subjects. In addition, 11 practice subjects prepared another 12 lectures, which were held outside the scope of teaching as faculty-wide lectures or for a wider group of interested parties. In total, 45 subjects participated in the lecture activity with 59 lectures, which were facilitated by individual departments of the faculty as detailed in the following table. The complete list of practice lectures, together with the title of the topic, name and affiliation of the lecturer, is given in the appendix.

Institute	Number of lectures delivered
IAMT	20
IEE	0
IPAE	11
IEP	6
ICSM	12
INPE	4
IMICT	3
IRC	3
Total	59

#### LECTURES FOR PRACTICE

In 2024, the faculty renewed more intensive cooperation with the Association of Alumni and Friends of FEI STU (EF SVŠT), the aim of which is to unite alumni and supporters of the faculty, maintain contact with them and support the faculty in implementing its main activities and promotion in accordance with the statutes of the association. Cooperation has great potential, especially in the area of maintaining contacts with graduates working in practice, which creates opportunities for

more effective linking of the faculty with industry and the development of mutually beneficial partnerships.

In 2024, the association organized a series of six lectures intended not only for its members, but also for the academic community and the general public. The lectures were held in the faculty premises and videos of four of them are available on the faculty's YouTube channel @fei stuba.

Date	Lecturers	Topic
14.02.2024	Prof. Ing. Peter Hubinský, PhD.	Robotics in space research
13.03.2024	Assoc. Prof. RNDr. Pavol Valko, CSc.	Our everyday gravity
10.04.2024	Assoc. Prof. Ing. Róbert Hinca, PhD.	Fukushima: Current situation and future perspective
15.05.2024	Prof. Ing. Dionýz Gašparovský, PhD.	New knowledge and trends in modern electric lighting
23.10.2024	Prof. Ing. Martin Weis, DrSc.	From print electronics to artificial neurons
20.11.2024	Prof. Ing. František Duchoň, PhD.	Research and development at the Institute of Robotics and Cybernetics of FEI STU

# MEMBERSHIPS IN INTERNATIONAL ASSOCIATIONS AND INSTITUTIONS

Faculty staff are members of many important international organizations and committees. In 2024, 83 memberships were recorded, a decrease of 1 compared to the previous year. Significant memberships, not only by number, are listed in the following table. The highest number of memberships, 19, is with IEEE – Institute of Electrical and Electronics Engineers. The full list and number of memberships are in the appendix.

Institute of Electrical and Electronics Engineers
International Federation of Automatic Control
Central Eur. Assoc. for Computational Mechanics
Union Radio-Scientifique Internationale
International Council on Large Electric Systems
Association for Computing Machinery
International Assoc. for Cryptologic Research
Sustainable Nuclear Energy Technology Platform
euRobotics aisbl
Inter. Fed. of Medical and Biological Engineering

# **QUALITY ASSURANCE SYSTEM**

In accordance with valid legislation, STU has created and continues to improve the internal system for ensuring the quality of the education provided. The internal system is a set of policies, structures and processes by which STU fulfills its mission and develops the quality of education, creative activities and other related activities in accordance with the long-term intention of STU. The list of internal regulations governing the processes of the internal system and the activities of authorities, employees, students and other interested parties in fulfilling the mission and developing quality is given in the appendix.

The STU body, which is responsible for ensuring the quality of educational activities, scientific research activities, habilitation procedures and procedures for the appointment of professors and other activities related to them, is the Council for the Internal System of Quality Assurance (VSK Council).

The members of the VSK Council are important experts from STU and from the external environment working in the areas in which STU carries out educational, research, development, artistic and other creative activities, representatives of employers and students of the second and third degree of study at STU.

Based on the request for assessment of the internal system of quality assurance of higher education sent to the Slovak Accreditation Agency for Higher Education (Agency) on 21 December 2022, a decision was delivered to the Rector of STU on 25 June 2024 stating that the internal system of STU and its implementation is in accordance with the Standards for the internal system. The attached evaluation report of the working group did not indicate any shortcomings, several examples of good practice were identified. and 78 recommendations were proposed.

# FACULTY STRUCTURES OF THE QUALITY ASSURANCE SYSTEM

# COUNCILS OF STUDY PROGRAMS

The Study Program Council (Study Program Council) is an advisory body to the guarantor of the study program. The STU Councils prepare proposals for new study programs, in cooperation with representatives of interested parties (students, teachers, employers), carry out periodic monitoring and evaluation of the quality of study programs and, on their basis, adopt measures for improvement, proposals for modification or

cancellation of study programs. The chairperson of the STU Council is the guarantor of the study program; if the STU Council operates for more than one study program, one of the guarantors of the relevant study programs is the chairperson.

The STU Council consists of at least 9 members, of which at least 3 are academic staff from the internal environment of STU, at least 3 are STU students, at least 3 are representatives of external stakeholders

from the ranks of employers, industrial partners, graduates who are significant experts in the relevant field. Other external members of the STU Council may be creative employees of other universities and research institutions.

The SP Council consists of at least 9 members, with at least 3 academic employees from STU's internal environment, at least 3 STU students, and at least 3 representatives of external stakeholders from employers, industrial partners, and graduates who are experts in the relevant field. Other external members can be creative employees of other universities and research institutions.

In connection with new study programs, 7 new Study Councils were created at FEI STU in 2024: 3 for new bachelor's programs at FEI STU and 4 for new joint programs within the STUBA-EUBA consortium. Thus, in 2024, 20 Study Councils operated at the faculty with a total of 245 members, including 63 students and 97 external members, representatives of employers and external educational institutions.

From 01 February 2024 to 31 January 2025, the Study Councils met mainly in connection with proposals of new study programs, periodic evaluation, approval, and proposals for modifications.

#### PERSONS RESPONSIBLE FOR STUDY PROGRAMS

The person responsible for the implementation, development and quality assurance of the study program at STU is the study program guarantor and co-guarantor of the study program, if designated for the study program. There are four other teachers working in the study program who guarantee the required level of creative activity in the study program. A total of 64 responsible people work at the faculty, of which 29 people work in the

functional position of professor and have the title of professor, 2 people work in the functional position of professor and have the title of associate professor 29 people work in the functional position of associate professor and have the title of associate professor, and 4 people work in the position of associate professor and do not have the title of associate professor.

# PERSONS RESPONSIBLE FOR THE QUALITY ASSURANCE SYSTEM

An authorized person for the quality assurance system is appointed at the faculty and is responsible for implementing policies and processes of the internal system and coordinates quality assurance activities at the faculty's

workplaces. The following also participate in the internal system processes:

The dean's collegium – discusses the intention to create a new study program,

the Scientific Council of the faculty – approves the intention to create a new study program; approves

documents of habilitation and inauguration proceedings; periodically evaluates the educational, scientific, research, and artistic activity of the faculty at least once a year,

The dean of the faculty — appoints the guarantor and members of study program councils; submits proposals for study program creation, modification or cancellation to the VSK Council; submits drafts to the rector of STU for habilitation and inaugural procedure rights,

The Disciplinary Committee – discusses disciplinary offenses of students enrolled in the faculty's study

programs and submits proposals for decisions to the dean.

Besides employees and students, representatives of employers and graduates are involved in the quality assurance system structures and processes, participating in creation, approval, monitoring, evaluation, and improvement of study programs within the Study Program Order. An overview of external stakeholders involved is presented in the appendix.

# QUALITY OF THE PEDAGOGICAL PROCESS

#### EVALUATION AND MONITORING OF THE PEDAGOGICAL PROCESS

The evaluation of the level of provision of study programs (SP) was carried out for 2024 by the Councils of Study Programs and the management of the faculty. The Councils of the SP and faculty management perceive the implementation of the SP very uniformly, jointly identifying deficiencies and seeking suitable solutions. The most significant challenge is the declining interest of students in electrical engineering at all study levels and the long-term decreasing quality of knowledge of students from secondary schools. The faculty responds by offering further education in mathematics and physics through the ongoing project "Student teaches student" and intensifies cooperation with secondary schools to minimize this deficiency. To increase the number of students in less popular but practice-required secondary schools, measures such as increased promotional

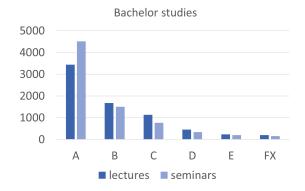
activities at secondary schools, fairs offering university studies, and other cooperation with practice have been taken. Involving experts from practice in teaching and final theses is necessary to increase the quality of offered secondary schools. Motivating students to participate in subject evaluation and increasing observation visits are expected to positively impact quality. Entrance exams are gradually introduced in selected secondary schools for bachelor's admission. Periodic approval of engineering programs allowed departments to adjust study plans, but more significant modernization improved and cooperation between departments are planned. The FEI STU doctoral program was replaced in 2024 by the expanded FEI STU Doctoral School, supporting doctoral education with courses and international internships. The faculty is also preparing 4th-year study programs and fostering a motivating environment for publications. Pedagogical process monitoring in 2023/24 involved 111 observation visits. In 2024, the Dean issued a directive on Observation Activities focusing

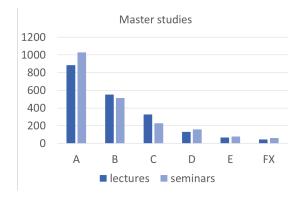
on subjects provided by doctoral students, beginning teachers, teachers with negative student evaluations, or those selected by study program guarantors.

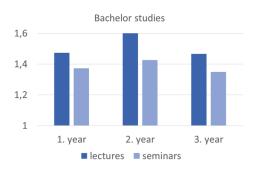
#### EVALUATION OF EDUCATION BY STUDENTS AND GRADUATES

In the academic year 2023/24, the evaluation of the pedagogical process by students took place through the Academic Information System in both the winter and summer semesters. 53% of students participated in the evaluation in the winter semester and 41% in the summer semester. Students evaluate subjects with grades from A (best) to FX (worst). The average grade was 1.52 for lectures and 1.38 for seminars in the bachelor study. In the master study, the grades were 1.53 for lectures and 1.51 for seminars. The interest of students in expressing their opinion in this survey has long been maintained at a low level, only 17%

of the students who participated in the survey would, for example, welcome the possibility of a quick evaluation of each lecture with a focus on the quality of explanation of the lectured topic using a QR code. The following graphs show the number of grades from the evaluation of lectures and exercises of the evaluated subjects in the academic year 2023/24 and average grades of lectures and seminars of subjects by grade in the academic year 2023/24.

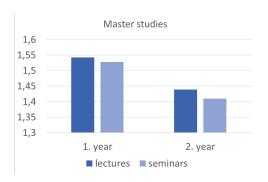






STU conducts a questionnaire survey to determine graduates' opinions on the compliance of their qualifications with the requirements for performing their profession. The survey results are one of the inputs to the periodic evaluation of study programs and the level of educational activities. In 2024, a survey was conducted of graduates who completed studies in the academic year 2022/23, expressing views on their work in the field, satisfaction with readiness for practice, satisfaction with their

Working in the field	Bachelor graduates	Master graduates	Doctoral graduates
Currently not working	2	0	0
Continuing with my studies	42	5	0
Working outside the field	1	13	2
Working in the field	16	84	1



studies, etc. Out of 596 graduates, 487 were addressed and 166 (34%) responded, of which 61 were bachelor's graduates, 102 engineering graduates, and 3 doctoral graduates. In total, 1.2% of respondents are currently not working, 28.3% continue their studies, 9.6% work outside their field, and 60.8% work in the field. 54.8% stated their studies sufficiently prepared them for practice, 39.2% did not answer. 75.9% would recommend the completed program to other applicants.

Training for	Bachelor	Master	Doctoral
practice	graduates	graduates	graduates
Excellent	2	10	0
Good	4	38	1
Satisfactory	8	28	0
Unsatisfactory	2	8	0
No response	45	18	2

# COMPLAINTS AND INITIATIVES

Keeping records, investigating and processing complaints, submissions and initiatives of natural persons and legal entities is ensured by the department of the chief controller of STU in accordance with the valid directive of the rector. In 2024, no complaints were filed against the faculty. Students have mechanisms for submitting suggestions through the black box (electronically through the faculty's website), with their

representatives in academic bodies, in study departments, or with members of the faculty/university management. These suggestions are continuously analyzed during the entire academic year and are dealt with promptly according to their severity. In the academic year 2023/2024, Black Box was mainly used as a form of obtaining information for the admissions process and issuing study certificates.

# QUALITY OF HABILITATION AND INAUGURATION PROCEEDINGS

The following fields of habilitation procedures and inaugural procedures are accredited at the faculty: Applied Informatics, Power Engineering, Electronics, Physical Engineering, Nuclear Power Engineering, Cybernetics, Mechatronics, Telecommunications, and Theoretical Electrical Engineering. All nine fields of habilitation procedures and inaugural procedures are accredited, and no measures were recommended

in connection with accreditation or approval in the Council of the internal system for ensuring quality. In all cases of the habilitation procedure and the inaugural procedure, the boards as well as the Scientific Council of FEI STU noted the high erudition of the applicants and the high quality of the translated habilitation theses, habilitation lectures and inaugural lectures.

# ACADEMIC INTEGRITY

Provisions for maintaining ethical principles and academic integrity are enshrined in the STU Student Code of Ethics, the Employee Code of Ethics and the STU Disciplinary Rules for Students. All violations of ethical principles are immediately reviewed by the STU Ethics Commission, or STU Disciplinary Committee or Faculty Disciplinary Committee according to affiliation. The Faculty's Disciplinary Committee discusses the disciplinary offenses of the Faculty's students and submits a proposal for a decision to the Dean. Its members are appointed by

the dean after approval by the academic senate of the faculty. In the 2023/24 academic year, the Faculty's Disciplinary Committee dealt with 9 offenses concerning fraudulent conduct. In the case of 4 offenses, disciplinary proceedings were discontinued due to lack of proof of fraudulent conduct. In the remaining cases, disciplinary measures of reprimand or conditional expulsion from studies were imposed.

# PROMOTION AND PUBLIC RELATIONS

Even in 2024, efforts to promote the study and increase the visibility of the faculty led to positive results and increased interest in study programs. It is necessary to continue the mission of inspiring new generations of students when choosing a university.

FEI STU graduates have the potential to solve many current and future problems of society, such as

sustainable energy, digitization, artificial intelligence, automation and many others. The promotion of studies at secondary schools plays an important role in the decision-making process when choosing a university. Although graduates of technical fields are in high demand in the labor market, there is still room to support increasing interest in studies in technical fields.

# PROMOTION OF THE STUDY

# **Open Door Day**

On 30 January 30, 2025, an Open Day was held at the Faculty of Electrical Engineering and Informatics of the Slovak University of Technology in Bratislava. The event attracted many students interested in studying, who had the opportunity to obtain detailed information about the study programs, visit laboratories and participate in various accompanying activities. The program was divided into morning and afternoon sessions, each of which

included presentations of individual study programs, excursions to laboratories and meetings with representatives of student organizations. Visitors especially appreciated the opportunity to have direct contact with teachers and students, which allowed them to gain an authentic view of life and study at the faculty. The event contributed to a better awareness of the study options at the FEI STU and strengthened the interest of applicants in technical fields.









In 2024, the faculty continued its previous successful digital marketing activities with the aim of reaching out to high school students even more intensively and raising awareness of the possibilities of studying at FEI STU. The campaign focused on promoting the new presentation website studuj.fei.sk. Digital communication took place via Google Ads, social networks, YouTube and the newly added Spotify, where audio advertising was deployed specifically aimed at a young audience. The end of 2024 was marked by the preparation of a new digital campaign with the main idea of FElmous, focused on introducing successful graduates of the faculty. The aim was to motivate applicants through authentic stories of those who have already achieved significant success in their fields.





# **Direct activities for applicants**

During 2024, the faculty actively participated in education fairs throughout Slovakia, where it presented its study programs and graduate employment opportunities. In addition, our students regularly visited high schools, where they presented and discussed life and studies at FEI STU.

A new feature of direct communication with high school students was the expansion of the offer to include organized excursions on the faculty's premises. These visits allow students and their teachers to experience the atmosphere of the faculty, visit professional laboratories, and gain direct contact with the academic environment.

At the same time, we introduced a completely new format called "One Day for FEI Students", which allows high school students to experience a regular study day at the faculty. During this day, candidates will participate in real lectures and seminars and are accompanied by an assigned "buddy" student - a guide who provides support, answers questions and shares their experiences throughout the day.





# SUCCESSES OF OUR STUDENTS

On the occasion of the International Student Day, the rector of STU awards the "Student of the Year" award for extraordinary results achieved in the previous academic year. The list of awardees in 2024 is in the table.

First name and surname	Award category
Matej Škultéty	Best bachelor student
Richard Bagín, Bc.	Best master student
Sofia Gašparová, Ing.	Best doctoral student
Ján Volko, Bc.	Important representative of STU in sport
Matej Novák, Ing.	Extraordinary activity in the development and promotion of STU
Tomáš Gergely, Bc.	Extraordinary achievement in the field of research and development

Our students also represented the faculty internationally within the framework of the COCOHRIW Project in Nancy, France. The team consisting of Ing. Michal Tölgyessy, PhD. and doctoral student Ing. Marek Čorňák presented their development in the COCOHRIW project during the euROBIN Coopetion activity. The development took place on a small mobile robot at the IRC and NCR, but within a few days they managed to successfully transform the created application onto the TIAGo robot created by PAL Robotics and loaned from INRIA (National Institute for Research in Digital Science and Technology). This high achievement

was achieved by the team in front of personalities such as C. Huet (Head of Robotics and Artificial Intelligence at the European Union), Antonio Puente (Program Manager of Robotics and Artificial Intelligence at the European Union) and Prof. Dr. Alin Albu-Schäffer (Director of the Institute of Robotics and Mechatronics at the Deutsches Zentrum für Luft- und Raumfahrt).

At the Vision 2024 computer vision exhibition in Stuttgart, the diploma thesis of Robotics and Cybernetics student Ing. Michal Lúčný was presented as part of the exhibition of the company XIMEA s.r.o. The student implemented complete data processing from a 2D color camera and a 3D time-of-flight camera into a color point cloud using the Nvidia Jetson embedded platform.

Ing. Zuzana Záňová received the "Best Paper Award" for the best contribution of the entire conference. It was an international scientific conference under the auspices of IEEE called the 2nd International Conference on Computational Intelligence and Network Systems (CINS). The conference was held on November 28 and 29, 2024 in Dubai, United Arab Emirates. The presented article was titled "Proposal of Cyber-Physical System for Real-Time Adaptive Airfoils in Vehicles". It deals with the innovative use of intelligent materials, specifically Macro Fiber Composite (MFC), in active aerodynamic systems of vehicles. Our students also represented the faculty at sports competitions. Timo Botka. the faculty Slovak representative at the University Championships in downhill skiing - slalom and took first place Ján Volko was the ambassador of LU SR 2024, which was organized by STU in Bratislava. At the European Athletics Championships in Rome on 07.06.2024, he managed to fight his way into the absolute elite when he advanced to the semifinals with a season high from the 100 m heats with a time of 10.35 seconds. In addition, he became the Slovak champion in the 100 and 200 m in Banská Bystrica. Our students also received other awards in the 2023/24 academic year for excellent academic results or participation in student conferences, their list is in the table.

Award	Number of awarded students
Rector's award for bachelor studies	1
Rector's award for master studies	6
Rector's award doctoral studies	0
Dean's award for bachelor studies	1
Dean's award for master studies	33
Commendation letter of the Dean for an excellent final thesis	39
Dean's award (ŠVOČ*)	6
Dean's diploma (ŠVOČ)	8
Dean's award (Elitech)	3

# SUCCESSES OF OUR EMPLOYEES

The L'Oréal-UNESCO For Women in Science program is a prestigious international award given to talented female scientists for their significant contributions in various fields of science. Since its inception in 1998, the program has honored more than 3,000 female scientists from more than 110 countries, making it one of the most significant recognitions for women in the scientific community. This year, the award was also received by Ing. Jana Šimeg Veterníková, PhD. from the Institute of Nuclear and Physical Engineering FEI STU for her contribution to nuclear energy.



The Rector's Award for Extraordinary Achievements in Educational Activities is awarded to university teachers who have made extraordinary contributions to building and developing STU, advancing education, achieved excellent results in educational activities, contributed to STU's

development, public promotion, and cooperation other universities and institutions domestically and abroad. The award was presented on Teachers' Day, 26 March 2024, and the Rector's Award for Merit from FEI was received by Prof. Ing. Ľubica Stuchlíková, PhD. (IEP), who carries out her pedagogical activities with extraordinary commitment and individual approach to students. During her career, she introduced and innovated several subjects, is a pioneer in e-learning and modern educational methods, and author of several textbooks.



Under the supervision of Prof. Stuchlíková, students have successfully defended many bachelor's, diploma and dissertation theses, as well as ŠVOČ (student scientific and special activity), which have received significant awards. She actively participates in international conferences and popularizes science in secondary schools.

# CONCLUSION

The submitted report assesses the Faculty of Electrical Engineering and Information Technology of the Slovak University of Technology for the period from 1 February 2024 to 31 January 2025 from the point of view of pedagogical activity, scientific and research activity, cooperation with practice and internal quality system. The report also includes the status of employees, organizational structure and other support activities, whether towards employees or students. Based on all the above data, statistics and records, it can be stated that the faculty meets the demanding requirements for a modern, flexible and effective scientific and educational institution, both from a pedagogical and research point of view, which develops modern areas of knowledge, while paying due attention to traditional areas to which Slovak industry is linked.

At the same time, it can be stated that the interest of high school students in individual study programs is significantly uneven. Special attention will have to be paid to study programs in the field of Electrical Engineering, where a systematically decreasing trend can be observed. On the contrary, in the case of study programs in the field of Informatics, the interest from applicants is so great that the faculty is unable to cover this interest. The year 2024 was the first year that introduced performance

contracts from a financing perspective. The faculty management made efforts and prepared a set of measures that should reflect the faculty's efforts to improve in selected indicators of performance contracts. The measures themselves will be evaluated only after a certain time and, if necessary, adjustments will be made to the proposed measures.

From the perspective of the second main activity, the faculty is a leader in the field of project activity. The outputs of the creative activities of faculty staff, especially publication outputs, represent one of the important indicators of the faculty's performance in the field of science and research. This area, especially given the number of projects obtained, should be strengthened in the future.

Cooperation with practice in the form of economic contracts is at a relatively low level and the faculty management will have to address the situation and take appropriate measures to improve it. A similar situation also appears in the area of filing patent applications and utility models.

From the point of view of employment, the faculty is in a stable state and the composition of creative workers guarantees that it will be able to provide quality performance in both pedagogical and scientific research activities in the future.

Bratislava 14 April 2025 Professor Ing. Vladimír Kutiš, PhD. Dean of FEI STU

# Elaborated by:

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# Co-workers:

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# APPENDICES

The appendices to the annual report can be found in its electronic version.



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