



Faculty
of Aeronautics

2019

Annual report



TECHNICAL UNIVERSITY
OF KOŠICE



Letná 9
042 00 Košice



+421 55 602 1111



www.tuke.sk



Faculty
of Aeronautics



Rampová 7
041 21 Košice



+421 55 602 6102



lf.tuke.sk



Letecká
fakulta
TUKÉ



60 YEARS

OF AVIATION EDUCATION IN KOŠICE

1959
2019



PRESENTED BY

Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M
Dean

AUTHORS

Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M

M.Eng. Ing. Marek Košuda

doc. Ing. Peter Korba, PhD., ING-PAED IGIP

Ing. Peter Čokina

doc. Ing. Monika Blišťanová, PhD., MBA, LL.M

Ing. Viera Jachymec Fol'ková



JUNE

Reconstruction of buildings in the premises of the FoA

06

MAY

Acquiring practical visual aids for teaching Avionics and Aeronautical Engineering in the form of a sponsorship gift

05



APRIL

The first company car of the FoA, acquired by a sponsorship gift from our partner STA

04

MARCH

Successful indexation of the first conference proceedings of the FoA in databases of Web of science & Scopus

03



FEBRUARY

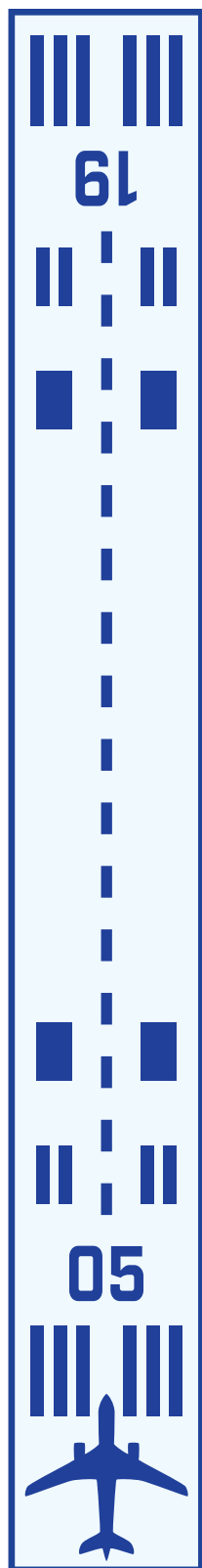
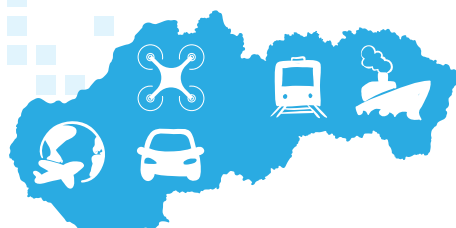
35. - Historically the most successful ball of the Faculty of Aeronautics

02

JANUARY

Active participation in the preparation of the new study field named TRANSPORT

01





JULY

Children's
University

07



III III
50

II II

■ ■

■ ■

II II

19

III III



AUGUST

Training of members of the
Burkina Faso Air Force by
lecturers of the FoA at the
University of Pardubice

08

SEPTEMBER

The FoA joins the
international
organization
ALICANTO

09



OCTOBER

The FoA joins the
International
Astronautical
Federation

10

NOVEMBER

Successful advocacy of a
project named 'Simula-
tion of interventions
in air accidents'

11



DECEMBER

Year 2019 - most no. of submit-
ted, accepted and researched
science projects in the
history of the faculty

12

TABLE OF CONTENTS

Speech by the Dean of the Faculty of Aeronautics	6
Organisational structure	8
Academic Senate of the Faculty of Aeronautics	10
Scientific Board of the Faculty of Aeronautics	11
Dean's Office of the Faculty	13
Scientific and pedagogical departments	15
Department of Avionics	17
Department of Aviation Engineering	19
Department of Aviation Technical Studies	21
Department of Flight Training	23
Department of Air Transport Management	26
Field of education	29
New Fields of Study System of the Slovak Republic	30
Accreditation – New Study Programmes	32
Field of Science, Research and Doctoral Studies	33
Scientific Board of the Faculty of Aeronautics	34
Overview of solved and ongoing projects	35
Conferences	38
Faculty Direction in the Field of Science and Research	42
Field of development and promotion	43
The field of promotion	44
Invited lectures	48
Field of cooperation	50
Cultural and social life at the Faculty of Aviation	56
Development of the infrastructure of the Faculty of Aeronautics	57
Conclusion	60
The Faculty of Aeronautics thanks to these partners for support and cooperation in 2019	62



SPEECH BY THE DEAN OF THE FACULTY OF AERONAUTICS

*The philosophy of aviation is open.
It is constantly developing based on dynamically
changing practices in the field of aviation, and therefore
aviation education should be the first to respond.*

Stanislav Szabo
Dean

Dear colleagues, students and dear readers,

In 2019, while performing all the basic tasks associated with declaring ourselves to be part of the university society of the Technical University of Kosice (TUKE), we focused on the development of knowledge through research, and at the same time, on dissemination this knowledge through education in accredited study programs at all three levels of university education. This year, our constant efforts have been to organize, manage, implement and monitor education so that it is assessed as unique, first-class and competitive, at least in the field of Central European academic aviation. We are aware that this goal can be achieved only by constant daily efforts to improve the management and monitoring processes, by modernizing the infrastructures of the faculties, but above all by ensuring a quality and attractive educational process in all our classrooms at the faculty, every day.

Generally, it can be stated that in 2019 our main effort was to increase our comprehensive readiness and ability to respond to always new and rising levels of criteria in the quality and sustainability of our educational process and increasing demands on the level of publishing and research. We actively participated in the creation of a new system of study fields in the Czech Republic with a focus on the new study program Transport. At the same time, we tried to create favourable conditions for entry into compliance with the newly created accreditation standards of the Czech Accreditation Agency for University Education Institutions, which were being prepared in 2019. We were the first to react dynamically to all possible changes in connection with this process annually.

The implementation of our institutional co-responsibility for offering and providing attractive and quality education was one of the most important tasks of the Faculty of Aeronautics in 2019, preparing, compiling and successfully accrediting new study programs at all three levels of university education, taking into account the newly created Transport study program. We fully respected two views that are interdependent: on the one hand, the needs and interests of the faculty, university and aviation practice, but on the other hand, the requirements and expectations of our clients - students of the Faculty of Aeronautics. Our students are and always will be the most important for us, the ones who use our services, and therefore when compiling our new study programs we tried to know and understand our student's expectations, thus creating the best conditions for students to succeed in the job market.

In addition to fulfilling these many tasks, the Faculty of Aeronautics in 2019 sought to constantly increase the level of internationalization and international cooperation. The Faculty of Aeronautics was looking for new opportunities for cooperation by creating quality and long-lasting partnerships that enabled the faculty to create a list of relevant foreign partners. The result of these efforts was the admission of TUKE to two important international aviation organizations in Alicante and the IAF - the International Astronomical Federation. (The Faculty of Aeronautics was the main initiator and remains the membership coordinator). These are historically the first international organizations to accept the Faculty of Aeronautics in an effort to meet all the prerequisites to become a full member.

To strengthen our long-term focus on the successful faculty, both at the university and in the field of Slovak academics, it was necessary, in 2019, to continue the historically most extensive reform changes that began in 2017, with an effort to maintain maximum staff support. We have been constantly working to improve systemic changes, to strengthen the new structure of industry management and to evaluate employees in line with the reforms introduced in the previous two years. All this was done in an effort to gain the most favourable influence on increasing the quality of teaching and other academic activities at all levels of life at the faculty. We tried to take all these results into account in advance in all our activities, immediately evaluated the processes and adjusted our attitude to them.

The evaluation of 2019, summarized in this annual report of the Faculty of Aeronautics, clearly confirms that not only were we successful in all key indicators, but we also achieved historically record maximum results in most indicators. With these successes, we celebrate and follow the 60th anniversary of aviation education in Kosice.



Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA. LL.M

Dean



Organisational **structure**



FACULTY MANAGEMENT



Dr.h.c. prof.h.c. doc. Ing. Stanislav SZABO, PhD., MBA, LL.M.
Dean



doc. Ing. Peter KORBA, PhD.,
ING-PAED IGIP
Vice-dean for Science and Research



M.Eng. Ing. Marek KOŠUDA
Vice-dean for development
(since 1.11.2019)



Ing. Radoslav ŠULEJ, PhD.
Vice-dean for education



Ing. Juraj VAGNER, PhD.,
ING-PAED IGIP
Chariman of the Academic senate



Mgr. Peter ČEKAN, PhD.
Vice-dean for development
(until 31.10.2019)



Ing. Peter ČOKINA
Secretary

Academic Senate of the Faculty of Aeronautics

Ing. Juraj Vagner, PhD., ING-PAED IGIP	Chairman	
Ing. František Heško	Vice-chairman	until 31.8.19
doc. Ing. Karol Semrád, PhD.	Vice-chairman	
Ing. Miroslav Spodniak	Vice-chairman	since 9.12.19
doc. Ing. Róbert Bréda, PhD.	Member	
PhDr. Anna Čekanová, PhD.	Member	
doc. Ing. Ladislav Főző, PhD.	Member	
Ing. Jozef Galanda, PhD.	Member	
Ing. Edina Jenčová, PhD.	Member	
Ing. Alica Tobisová, PhD., ING-PAED IGIP	Member	
Bc. Natália Triščíková	Member	
Tomáš Zelinka	Member	until 18.6.19
Martina Hlavatá	Member	until 25.9.19
Peter Kaukes	Member	until 25.9.19

Faculty of Aeronautics in the Academic Senate of TUKE

prof. Ing. František Adamčík, CSc.	
Ing. Juraj Vagner, PhD., ING-PAED IGIP	since 11.2.19
Martina Hlavatá	since 25.9.19

Faculty of Aeronautics in the University Council of SR

PhDr. Anna Čekanová, PhD.	Vice-chairman
---------------------------	---------------



Scientific Board of the Faculty of Aeronautics

Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M.	Chairman	
doc. Ing. Peter Korba, PhD., ING-PAED IGIP	Vice-chairman	
Mgr. Peter Čekan, PhD.	Department of Air Transport Management	until 6.11.19
doc. Ing. Monika Blišťanová, PhD., MBA, LL.M.	Department of Air Transport Management	since 7.11.19
prof. Ing. František Adamčík, CSc.	Department of Avionics	
doc. Ing. Rudolf Andoga, PhD.	Department of Avionics	
prof. Ing. Josef Blažek, CSc.	Department of Aviation Technical Studies	since 7.3.19
doc. Ing. Róbert Bréda, PhD.	Department of Avionics	
Dr.h.c. mult. prof. Ing. Paweł Czarnecki, PhD., MBA, LL.M, MPH	Department of Air Transport Management	
prof. Ing. Milan Džunda, CSc.	Department of Air Transport Management	
doc. Ing. Ladislav Főző, PhD.	Department of Aviation Engineering	
doc. Ing. Michal Hovanec, PhD.	Department of Aviation Engineering	
doc. Ing. Jozef Hudák, CSc.	Department of Aviation Technical Studies	until 9.6.19
doc. Ing. Pavol Lipovský, PhD., ING-PAED IGIP	Department of Aviation Technical Studies	since 10.6.19
Dr.h.c. prof. Ing. Miroslav Kelemen, DrSc., MBA, LL.M.	Department of Aviation Technical Studies	
doc. RNDr. Eva Komová, PhD.	Department of Aviation Technical Studies	until 6.11.19
doc. Ing. Pavol Kurdel, PhD.	Department of Avionics	since 7.11.19
doc. Ing. Václav Moucha, CSc.	Department of Aviation Technical Studies	
doc. Ing. Vladimír Němec, Ph.D., prof.h.c.	Department of Flight Training	
doc. Ing. Dušan Neštrák, CSc.	Department of Flight Training	
doc. Ing. Karol Semrád, PhD.	Department of Aviation Engineering	
doc. RNDr. Ladislav Tomčo, PhD.	Department of Aviation Technical Studies	
Ing. Radoslav Šulej, PhD.	Department of Air Transport Management	

Ing. Ján Breja	Transport Authority, Bratislava
Prof. PŚ, dr hab. Małgorzata Dobrowolska, PhD.	Silesian University of Technology, Katowice, Poland
prof. Ing. Zdeněk Dvořák, PhD.	University of Žilina in Žilina
prof. Ing. Beáta Gavurová, PhD., MBA., LL.M	Charles University in Prague
doc. dr hab. inż. Jarosław Kozuba, prof.nadzw.	Silesian University of Technology, Katowice, Poland
Dr.h.c. prof. Ing. Miroslav Líška, CSc.	Akadémia ozbrojených síl gen. M.R.Štefánika Liptovský Mikuláš
doc. Ing. Jindřich Ploch, CSc.	University of International and Public Relations Prague
doc. Ing. Radovan Soušek, Ph.D.	University of Pardubice
Ing. Blažej Zaujec	Air traffic services, š.p., Bratislava

Dean's Office of the Faculty

Ing. Peter Čokina Secretary of the Faculty	Tel.: +421 55 602 6104 +421 903 820 019 Email: tajom.lf@tuke.sk peter.cokina@tuke.sk
Mgr. Martina Melníková Dean's assistant	Tel.: +421 55 602 6102 Email: martina.melnikova@tuke.sk
Kamila Ondová Study assistant	Tel.: +421 55 602 6115 Email: studijne.lf@tuke.sk kamila.ondova@tuke.sk
Ing. Monika Banik Study assistant	Tel.: +421 55 602 6109 Email: studijne.lf@tuke.sk monika.banik@tuke.sk
Ing. Martina Melicherová Assistant for science, research and foreign relations	Tel.: +421 55 602 6108 Email: martina.melicherova@tuke.sk
Jana Jakubišínová Assistant for affairs	Tel.: +421 55 602 6114 Email: jana.jakubisinova@tuke.sk
Ing. Viera Jachymec Folková L&W and personnel assistant	Tel.: +421 55 602 6105 Email: viera.jachymec.folkova@tuke.sk
Zdenka Šutáková Assistant for development and promotion	Tel.: +421 55 602 6124 +421 918 949 889 Email: zdenka.sutakova@tuke.sk
Ing. Mária Melníková Assistant for billing and public procurement	Tel.: +421 55 602 6112 Email: maria.melnikova@tuke.sk
Jarmila Muchová Assistant for treasury, asset management and job posts	Tel.: +421 55 602 6113 Email: jarmila.muchova@tuke.sk
Ing. Ján Bodnár ml. Head of the operating unit	Tel.: +421 918 717 407 Email: jan.bodnar.2@tuke.sk
Ing. Oto Malenčík ICT administrator	Tel.: +421 55 602 6110 +421 918 717 453 Email: oto.malencik@tuke.sk
Ján Bodnár st. (locksmith, driver) Róbert Horváth (gardener, bricklayer) Jozef Matej (painter)	Tel.: +421 918 717 465 Email: jan.bodnar@tuke.sk





Scientific and pedagogical departments

SCIENTIFIC AND PEDAGOGICAL DEPARTMENTS



Department of Avionics

Aircraft instruments, navigation systems, radiotechnical, electrical and special on-board systems of aircraft, aviation and aerospace technology



Department of Aeronautical Engineering

Construction of aircraft and aircraft engines, material engineering, aviation and aerospace engineering



Department of Aviation Technical Training

Electrical engineering magnetometry and diagnostics in aerospace, mathematics, physics, aircraft and aerospace systems



Department of Flight Training

Training of flying personnel and air traffic control, aerodynamics and mechanics of flying



Department of Air Traffic Management

Management and economics of aircraft activities, air safety and information systems in air traffic management

New logos of the departments were launched on November 11th, 2019

Department of Avionics



The Department of Avionics provides teaching of subjects focused on aerospace electronics, instruments and instrumentation systems, cybernetic systems, electrical systems, radio navigation systems, radio systems, radar systems, radio and on-board information systems, data processing and transmission systems.

Department performs scientific research in selected areas of aviation and aerospace technology, such as: application and research of modern adaptive and intelligent algorithms in avionic cybernetic systems, development and increasing the accuracy of navigation parameters of moving objects using integration methods, development of diagnostics of on-board radio systems and determination methods

for determining their reliability, research of polar and spatial directional characteristics of aircraft antennas of on-board radio-communication and radio navigation systems with direct connection to aircraft, helicopters and space vehicles.

Department guarantees and accomplishes retraining courses for pilots and module training, basic training course for category of technicians B2 from the material part of aircraft in the fields of avionics, aircraft instrumentation systems, aircraft electrical systems, aircraft radio and radio systems, special aircraft systems in accordance with Part 147.



Department management

doc. Ing. Róbert Bréda, PhD.

Head of department

Tel: +421 908 998 561

+421 55 602 6142

E-mail: robert.breda@tuke.sk
ka.lf@tuke.sk

doc. Ing. Rudolf Andoga, PhD.

Manager for science and research

Tel.: +421 55 602 6140

E-mail: rudolf.andoga@tuke.sk

Ing. Marek Češkovič, PhD.

Development manager

Practical training manager

Study advisor

Tel.: +421 55 602 6147

E-mail: marek.ceskovic@tuke.sk

Ing. Martin Schrötter, PhD.

Manager for education

Tel.: +421 55 602 614

E-mail: martin.schrotter@tuke.sk

Oľga Kizeková

Department secretariat

Tel.: +421 55 602 6144

E-mail: olga.kizekova@tuke.sk

Department staff

prof. Ing. František Adamčík, CSc. Professor	Tel.: +421 55 602 6170 E-mail: frantisek.adamcik@tuke.sk
Dr.h.c. prof. Ing. Tobiáš Lazar, DrSc. Emeritus Professor	Tel.: +421 55 602 6149 E-mail: tobias.lazar@tuke.sk
doc. Ing. Pavol Kurdel, PhD. Associate Professor	Tel.: +421 55 602 6147 E-mail: pavol.kurdel@tuke.sk
doc. Ing. Ján Labun, PhD. Associate Professor	Tel.: +421 55 602 6148 E-mail: jan.labun@tuke.sk
Ing. Samuel Bucko, PhD. Special assistant	Tel.: +421 55 602 6145 E-mail: samuel.bucko@tuke.sk
Ing. Martin Matis, PhD. Special assistant	Tel.: +421 55 602 6145 E-mail: martin.matis@tuke.sk
Ing. Peter Jozek, PhD. Technician	Tel.: +421 55 602 6146 E-mail: peter.jozek@tuke.sk
Jaroslav Paroulek Technician	Tel.: +421 55 602 6146 E-mail: jaroslav.paroulek@tuke.sk

Doctoral students

Ing. Jakub Leško Internal doctoral student	Tel.: +421 55 602 6172 E-mail: jakub.lesko@tuke.sk
Ing. Dávid Megyesi Internal doctoral student	Tel.: +421 55 602 6172 E-mail: david.megyesi@tuke.sk
Ing. Michal Schreiner Internal doctoral student	Tel.: +421 55 602 6172 E-mail: michal.schreiner@tuke.sk
Ing. Tomáš Moravec Internal doctoral student	Until 28.8.19
Ing. Martin Čatloš External doctoral student	Tel.: +421 55 602 6172 E-mail: martin.catlos@tuke.sk
Ing. Gabriel Kalapoš External doctoral student	Tel.: +421 55 602 6172 E-mail: gabriel.kalapos@tuke.sk
Ing. Lukáš Korba External doctoral student	Tel.: +421 55 602 6144 E-mail: lukas.korba@student.tuke.sk
Ing. Boris Mrekaj External doctoral student	Tel.: +421 55 602 6144 E-mail: boris.mrekaj@tuke.sk
Ing. Marián Miľo External doctoral student	Until 28.8.19

Department of Aviation Engineering



The Department of Aviation Engineering provides teaching of subjects focused mainly on the theoretical training of ground and flying personnel in the areas of theory and construction of aircraft, aircraft engines, ground technical and operational support of aircraft and airport flying and practical training of ground and flying personnel in these areas and medium-term courses in the field of aircraft type retraining and operational and security technology of aviation personnel.

Department also performs for aviation personnel short-time and middle-time courses of retraining for aircraft types and operating and security technology. Performs scientific research activities mainly in the areas of construction of aircraft and aircraft engines, construction of ground support equipment for aircraft and aircraft engines, management and execution of work related to the use of aircraft and aircraft engines, management and performance of work related to airport and ground security of aircraft engines.



Department management

doc. Ing. Michal Hovanec, PhD.
Head of department

Tel: +421 55 602 6187
E-mail: michal.hovanec@tuke.sk
kli.lf@tuke.sk

doc. Ing. Karol Semrád, PhD.
Manager for education

Tel.: +421 55 602 6158
E-mail: karol.semrad@tuke.sk

doc. Ing. Ladislav Főző, PhD.
Manager for science and research

Tel.: +421 55 602 6174
E-mail: ladislav.fozo@tuke.sk

Ing. Samer Abdo Saleh Al-Rabeei, PhD.
Development manager

Tel.: Tel.: +421 55 602 6182
E-mail: samer.abdo.saleh.al-rabeei@tuke.sk

Jana Tkáčová
Department secretariat

Tel.: +421 55 602 6171
E-mail: jana.tkacova.2@tuke.sk

Department staff

doc. Ing. Peter Korba, PhD ., ING-PAED IGIP Associate Professor	Tel.: +421 55 602 6116 +421 918 950 300 E-mail: peter.korba@tuke.sk
Ing. Stanislav Fábry, PhD. Special assistant	Tel.: +421 55 602 6107 E-mail: stanislav.fabry@tuke.sk
Ing. Peter Gašparovič, PhD. Special assistant	Tel.: +421 55 602 6129 E-mail: peter.gasparovic@tuke.sk
Ing. Marián Hocko, PhD. Special assistant	Tel.: +421 55 602 6145 E-mail: marian.hocko@tuke.sk
Ing. Sebastián Makó Engineer	Tel.: +421 55 602 6146 E-mail: sebastian.mako@tuke.sk
Ing. Stanislav Prachař Engineer	Tel.: +421 55 602 6146 E-mail: stanislav.prachar@tuke.sk
Marián Eperješi Technician	Tel.: +421 55 602 6146 E-mail: marian.eperjesi@tuke.sk
Ing. Miroslav Hájek Technician	Tel.: +421 55 602 6145 E-mail: miroslav.hajek@tuke.sk

Doctoral students

Ing. Miroslav Spodniak Internal doctoral student	Tel.: +421 55 602 6121 E-mail: miroslav.spodniak@tuke.sk
Ing. Tomáš Musil Internal doctoral student	Tel.: +421 55 602 6121 E-mail: tomas.musil@tuke.sk
Ing. Nikola Staříčná Internal doctoral student	Tel.: +421 55 602 6171 E-mail: nikola.staricna@tuke.sk
Ing. Patrik Šváb Internal doctoral student	Tel.: +421 55 602 6116 E-mail: patrik.svab@tuke.sk
Mateusz Ojciec External doctoral student	Tel.: +421 55 602 6121 E-mail: mateusz.ojciec@tuke.sk
Ing. Igor Vasilčín External doctoral student	Tel.: +421 55 602 6121 E-mail: igor.vasilcin@tuke.sk
Ing. Ján Savka External doctoral student	Tel.: +421 55 602 6121 E-mail: jan.savka@tuke.sk
Ing. Martin Vencel' External doctoral student	Tel.: +421 55 602 6121 E-mail: martin.vencel@tuke.sk
Mgr. Alena Moravčíková External doctoral student	Tel.: +421 55 602 6121 E-mail: alena.moravcikova@tuke.sk
Ing. Barbora Wysoczanská External doctoral student	Tel.: +421 55 602 6171 E-mail: barbora.wysoczanska@tuke.sk
Ing. Miriama Golisová External doctoral student	Tel.: +421 55 602 6121 E-mail: miriama.golisova@tuke.sk

Department of Aviation Technical Studies



The Department of Aeronautical Technical Studies provides teaching of basic science subjects for all study programs of the Faculty of Aviation, provides teaching of professional and profile electrical engineering subjects for study programs in the electrical engineering and mechanical engineering field of the Faculty of Aviation.

Performs scientific research activities in selected areas of avionics: applied magnetometry in aerospace and industrial technology systems, development and optimization of construction and properties of magnetic sensors, development of effective methods of sensor calibration in aerospace and industrial technology, development of communication technologies for unmanned aircraft; in selected areas of physics: study of physical properties of magnetic fluids, selected magnets and magnetic microwires; in selected areas of mathematics with a focus on: numerical methods for solving ordinary and partial differential equations, operational analysis, graph theory, hypergraphs and combinatorial structures, didactics of teaching subjects, traffic control personnel. It also performs short-term and medium-term courses in the field of theoretical subjects of air training and air traffic control.



Department management

doc. Ing. Václav Moucha, CSc.
Head of department

Tel: +421 55 602 6155
+421 55 602 6152
E-mail: vaclav.moucha@tuke.sk
kltp.lf@tuke.sk

doc. Ing. Miroslav Šmelko, PhD.
Manager for education

Tel.: +421 55 602 6150
E-mail: miroslav.smelko@tuke.sk

doc. Ing. Katarína Draganová, PhD., ING-PAED IGIP
Manager for science and research

Tel.: +421 55 602 6153
E-mail: katarina.draganova@tuke.sk

Ing. Mária Jozeková
Development manager

Tel.: +421 55 602 6152
E-mail: maria.jozekova@tuke.sk

Ing. František Heško, PhD.
Special assistant

E-mail: frantisek.hesko@tuke.sk

Department staff

prof. Ing. Josef Blažek, CSc. Professor	Tel.: +421 55 602 6154 E-mail: josef.blazek@tuke.sk
prof. Ing. Dušan Rodziňák, CSc. Emeritus Professor	Tel.: +421 55 602 6157 E-mail: dusan.rodzinak@tuke.sk
doc. RNDr. Eva Komová, PhD. Associate Professor	Tel.: +421 55 602 6137 E-mail: eva.komova@tuke.sk
doc. RNDr. Ladislav Tomčo, PhD. Associate Professor	Tel.: +421 55 602 613 E-mail: ladislav.tomco@tuke.sk
doc. Ing. Pavol Lipovský, PhD., ING-PAED IGIP Associate Professor	Tel.: +421 55 602 6156 E-mail: pavol.lipovsky@tuke.sk
M.Eng. Ing. Marek Košuda Special assistant	Tel.: +421 55 602 6189 E-mail: marek.kosuda@tuke.sk
RNDr. Peter Szabó, PhD. Special assistant	Tel.: +421 55 602 6161 E-mail: peter.szabo@tuke.sk
RNDr. Katarína Tibenská, PhD. Special assistant	Tel.: +421 55 602 6138 E-mail: katarina.tibenska@tuke.sk
RNDr. Vladimír Železník Special assistant	Tel.: +421 55 602 6161 E-mail: vladimir.zeleznik@tuke.sk
doc. Ing. Jozef Hudák, CSc., m.prof. Associate Professor	Until 31.12.19
Ing. Martin Mička Special assistant	Until 2.10.19
RNDr. Eva Baranová Special assistant	Until 1.10.19

Doctoral students

Ing. Martin Filko Internal doctoral student	Tel.: +421 55 602 6127 E-mail: martin.filko@tuke.sk
Ing. Jozef Novotňák Internal doctoral student	Tel.: +421 55 602 6127 E-mail: jozef.novotnak@tuke.sk
Ing. Zoltán Szőke Internal doctoral student	Tel.: +421 55 602 6154 E-mail: zoltan.szoke@tuke.sk
Ing. Rastislav Jurč External doctoral student	Tel.: +421 55 602 6152 E-mail: rastislav.jurc@tuke.sk

Department of Flight Training



It provides teaching of subjects focused mainly on the issue of theoretical training of flying personnel, air traffic control personnel, training of flying personnel and air traffic control personnel. It also performs short-term and medium-term courses in the field of theoretical subjects of air training and air traffic control.

It performs scientific research activities especially in selected areas of training of flying personnel and air traffic controllers, air safety and air traffic control. It participates in the development and improvement of new methods in the theoretical and practical teaching of flight training subjects.



Department management

Ing. Róbert Rozenberg, PhD.

Head of department

Tel: +421 918 691 176

+421 55 602 6162

E-mail: robert.rozenberg@tuke.sk
klp.lf@tuke.sk

Ing. Stanislav Ďurčo, PhD.

Manager for education

Tel.: +421 55 602 6166

E-mail: stanislav.durco@tuke.sk

Ing. Peter Kaľavský, PhD.

Manager for science and research

Tel.: +421 55 602 6120

E-mail: peter.kalavsky@tuke.sk

Ing. Matej Antoško, PhD., ING-PAED IGIP

Development manager

Tel.: +421 55 602 6167

E-mail: matej.antosko@tuke.sk

Ing. Lucia Vargová

Department secretariat

Tel.: +421 55 602 6163

E-mail: lucia.vargova@tuke.sk

Department staff

Dr.h.c. prof. Ing. Miroslav Kelemen, DrSc., MBA, LL.M. Professor Advisor to the Dean for Flight Training Commission at the Transport School	Tel.: +421 55 602 6188 E-mail: miroslav.kelemen@tuke.sk
doc. Ing. Vladimír Němec, Ph.D., prof.h.c. Associate Professor Head of ATO/MTO	Tel.: +421 55 602 6163 +420 606 858 083 E-mail: vladimir.nemec@tuke.sk
doc. Ing. Dušan Neštrák, PhD. Associate Professor	Tel.: +421 55 602 6131 E-mail: dusan.nestrak@tuke.sk
PhDr. Anna Čekanová, PhD. Special assistant	Tel.: +421 55 602 6164 E-mail: anna.cekanova@tuke.sk
Ing. Ľubomír Fábry, PhD., ING-PAED IGIP Special assistant	Tel.: +421 55 602 6184 E-mail: lubomir.fabry@tuke.sk
Ing. Robert Klír, PhD., ING-PAED IGIP, MBA Special assistant	Tel.: +421 55 602 6123 E-mail: robert.klir@tuke.sk
Ing. Jozef Sabo, PhD. Special assistant	Tel.: +421 55 602 6191 E-mail: jozef.sabo@tuke.sk
Ing. Juraj Vagner, PhD., ING-PAED IGIP Special assistant	Tel.: +421 918 882 383 +421 55 602 6118 E-mail: juraj.vagner@tuke.sk
Ing. Imrich Harčár Assistant	Tel.: +421 55 602 6193 E-mail: imrich.harcar@tuke.sk
Ing. Ladislav Choma Assistant	Tel.: +421 55 602 6165 E-mail: ladislav.choma@tuke.sk
Mgr. Dana Džalajová Lecturer	Tel.: +421 55 602 6164 E-mail: dana.dzalajova@tuke.sk
Ing. Pavol Kavka Lecturer	Tel.: +421 55 602 6167 E-mail: pavol.kavka@tuke.sk
PhDr. Anna Mikolášová Lecturer	Tel.: +421 55 602 6164 E-mail: anna.mikolasova@tuke.sk
Ing. Pavol Petříček Lecturer	Tel.: +421 55 602 6193 E-mail: pavol.petricek@tuke.sk
Mgr. Miroslava Semančíková Lecturer	Tel.: +421 55 602 6164 E-mail: miroslava.semancikova@tuke.sk
Peter Guzikiewicz Technician	Tel.: +421 55 602 6122 E-mail: peter.guzikiewicz@tuke.sk
doc. Ing. Ján Balint, Csc. Associate Professor	Until 31.12.19

Doctoral students

JUDr. Jaroslav Jevčák, MBA Internal doctoral student	Tel.: +421 55 602 6125 E-mail: jaroslav.jevcak@tuke.sk
Mgr. Branko Mikula Internal doctoral student	Tel.: +421 55 602 6194 E-mail: branko.mikula@tuke.sk

Ing. Hélia Némethová Internal doctoral student	Tel.: +421 55 602 6125 E-mail: helia.nemethova@tuke.sk
Ing. Pavol Petříček External doctoral student	E-mail: pavol.petricek@tuke.sk
Ing. Filip Balla External doctoral student	E-mail: filip.balla@tuke.sk
Ing. Ladislav Choma External doctoral student	Tel.: +421 55 602 6165 E-mail: ladislav.choma@tuke.sk
Ing. Miroslava Ferencová External doctoral student	E-mail: miroslava.ferencova@tuke.sk
Mgr. Petr Daňko External doctoral student	E-mail: petr.danko@tuke.sk

Department of Air Transport Management



Department of Air Transport Management offers higher education for aviation specialists within accredited study program of Air Transport Management at its all three levels: bachelor study, engineering study, as well as in the doctoral study program, with respect to national and European aviation legislative requirements.

It performs scientific research in the field of selected problems of air traffic management with emphasis on the management and marketing of airlines, economic aspects of airlines, issues of organization of activities and logistics of airports, air safety and information systems in air traffic management.



Department management

Ing. Peter Koščák, PhD., ING-PAED IGIP

Head of department

Tel: +421 55 602 6186

+421 918 691 174

E-mail: peter.koscak@tuke.sk

kmlp.lf@tuke.sk

Ing. Dorota Liptáková, PhD.

Manager for education

Study advisor

Tel.: +421 55 602 6134

E-mail: dorota.liptakova@tuke.sk

Ing. Alica Tobisová, PhD., ING-PAED IGIP

Manager for science and research

Tel.: +421 55 602 6190

E-mail: alica.tobisova@tuke.sk

Ing. Edina Jenčová PhD.

Development manager

Tel.: +421 55 602 6134

E-mail: edina.jencova@tuke.sk

doc. Ing. Monika Blišťanová, PhD., MBA, LL.M

Manager for science, research and projects

Tel.: +421 55 602 6116

E-mail: monika.blisanova@tuke.sk

Henrieta Schillerová

Technician for educational activities

Tel.: +421 55 602 6200

E-mail: henrieta.schillerova@tuke.sk

Department staff

prof. Ing. Milan Džunda, CSc. Professor	Tel.: +421 55 602 6141 E-mail: milan.dzunda@tuke.sk
Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M Associate Professor	Tel.: +421 55 602 6102 E-mail: stanislav.szabo@tuke.sk
Mgr. Peter Čekan, PhD. Special assistant	Tel.: +421 55 602 6126 E-mail: peter.cekana@tuke.sk
Ing. Jozef Galanda, PhD. Special assistant	Tel.: +421 55 602 6133 E-mail: jozef.galanda@tuke.sk
Ing. Peter Hanák, PhD. Special assistant	Tel.: +421 55 602 6198 E-mail: peter.hanaka@tuke.sk
Ing. Ján Kolesár, PhD. Special assistant	Tel.: +421 55 602 6185 E-mail: jan.kolesar@tuke.sk
Ing. Lucia Melníková, PhD. Special assistant	Tel.: +421 55 602 6195 E-mail: lucia.melnikova@tuke.sk
Ing. Luboš Socha, PhD., PhD. Special assistant	Tel.: +421 55 602 6198 E-mail: lubos.socha@tuke.sk
Ing. Radoslav Šulej, PhD. Special assistant	Tel.: +421 55 602 6114 +421 918 950 041 E-mail: radoslav.sulej@tuke.sk
Dr.h.c. mult. prof. Ing. Paweł Czarnecki, PhD., MBA, LL.M, MPH Researcher	Tel.: +421 55 602 6200 E-mail: pawel.czarnecki@tuke.sk
Ing. Daniel Blaško, PhD. MBA Researcher	Tel.: Tel.: +421 55 602 6130 E-mail: daniel.blasko@tuke.sk
Ing. Bc. Stanislav Szabo, MBA Researcher	Tel.: +421 55 602 6132 E-mail: stanislav.szabo.2@tuke.sk
Ing. Iveta Vajdová, PhD. Vedecký pracovník	Tel.: +421 55 602 6178 E-mail: iveta.vajdova@tuke.sk
doc. Ing. Slavomír Kiš, CSc. Associate Professor	Until 31.12.19

Doctoral students

Ing. Peter Dzurovčin Internal doctoral student	Tel.: +421 55 602 6197 E-mail: peter.dzurovcin@tuke.sk
Ing. Sebastián Makó Internal doctoral student	Tel.: +421 55 602 6197 E-mail: sebastian.mako@tuke.sk
Ing. Marek Pilát Internal doctoral student	Tel.: +421 55 602 6197 E-mail: marek.pilat@tuke.sk
Ing. Patrik Šváb Internal doctoral student	Tel.: +421 55 602 6197 E-mail: patrik.svab@student.tuke.sk
Ing. Michaela Kešellová Internal doctoral student	Tel.: +421 55 602 6197 E-mail: michaela.keselova@student.tuke.sk
Ing. Daniela Čekanová Internal doctoral student	Until 12.06.19

Ing. Zuzana Šusterová Internal doctoral student	Until 12.06.19
Ing. Henryk Nowakowski External doctoral student	Tel.: +421 55 602 6200 E-mail: henryk.nowakowski@tuke.sk
Ing. Tomáš Puškáš External doctoral student	Tel.: +421 55 602 6200 E-mail: tomas.puskas@student.tuke.sk
Ing. Jacek Lazarczyk External doctoral student	Tel.: +421 55 602 6200 E-mail: jacek.lazarczyk@tuke.sk
Ing. Beáta Ovčáková External doctoral student	Tel.: +421 55 602 6200 E-mail: beata.ovcackova@student.tuke.sk
Ing. Radoslav Rabatin External doctoral student	Tel.: +421 55 602 6200 E-mail: radoslav.rabatin@student.tuke.sk
Ing. Viktória Čokynová External doctoral student	Tel.: +421 55 602 6200 E-mail: viktoria.cokynova@student.tuke.sk
Ing. Marek Majerník, MBA External doctoral student	Tel.: +421 55 602 6200 E-mail: marek.majernik@student.tuke.sk
Ing. Michal Ondruš External doctoral student	Tel.: +421 55 602 6200 E-mail: michal.ondrus@student.tuke.sk
Ing. Radovan Baláž External doctoral student	Tel.: +421 55 602 6200 E-mail: radovan.balaz@student.tuke.sk
Ing. Viera Dulinová External doctoral student	Tel.: +421 55 602 6200 E-mail: viera.dulinova@student.tuke.sk
Ing. Pavol Kavka External doctoral student	Tel.: +421 55 602 6200 E-mail: pavol.kavka@student.tuke.sk
Ing. Marian Jančík External doctoral student	Tel.: +421 55 602 6200 E-mail: marian.jancik@student.tuke.sk
Ing. Miroslava Ferencová External doctoral student	Tel.: +421 55 602 6200 E-mail: miroslava.ferencova@student.tuke.sk
Ing. Alena Moravčíková External doctoral student	Tel.: +421 55 602 6200 E-mail: alena.moravcikova@student.tuke.sk
Ing. Mária Kováčová External doctoral student	Until 25.04.19
Mc. Jacek Krawczyk External doctoral student	Until 15.05.19
Ing. Boris Mrekaj External doctoral student	Until 12.06.19



Field of education

The educational process at the Faculty of Aeronautics was organized and directed in 2019 in order to meet the goals set in the accredited study programs. In the academic year of 2018/2019, teaching in the traffic and management took place in four bachelor's degree programs: Professional Pilot, Air Traffic Controller, Air Traffic Control, and in one engineering degree program: Air Traffic Control. As to the technology, there were three bachelor's degree programs: Aircraft Operation, Aerospace Technology, Avionics Systems; and two engineering degree programs: Aircraft Operation and Sensors and Avionics Systems. All activities related to the pedagogical activities were managed in MAIS, the academic information system.

In the field of education, two very important activities took place in 2019, which are largely related to the field of education.

The first of these was the new system of the Fields of Study of the Slovak Republic, which the Faculty of Aeronautics has been working on since mid-2018. The process of creating a new Fields of Study system culminated with the great efforts by the Dean of the Faculty of Aeronautics and members of the working group in the first half of 2019. The new Fields of Study system was adopted with effect from 01 September 2019.

The second important activity in the field of education was the accreditation of new study programs. The study programs accredited in 2014 were replaced by new ones after 5 years. The process of accreditation of the new study programs began at the beginning of 2018. In September 2018, one new study program was accredited. In 2019, preparations continued for the accreditation of other study programs, which were successfully accredited in October and December 2019. The process of accreditation of the new study programs required a lot of effort from the management of the Faculty of Aeronautics, guarantors of the new study programs, and the University teachers, who will participate in teaching in the given study programs.

New Fields of Study System of the Slovak Republic

At the initiative of the Deans' Club, the Slovak Rectors' Conference, and the Accreditation Commission, the process of revision and elaboration of a proposal for a new System of Fields of Study (FoS) was launched in 2017, which will integrate the existing FoS into new broader units, under which universities in the Slovak Republic can provide higher education. There were more than 370 FoS until August 30, 2019, which were adopted in 2003.

The revision of the FoS system, and drafting and subsequent adoption of the new FoS system were aimed at defining the relevant fields of study without unnecessary granularity and overlap; defining the graduate profiles so as to focus on formulizing the learning outcomes, the professional, cross-cutting and transferable skills and competencies of graduates; and defining the framework content in terms of the specifics of a particular field of study with a link to the National Qualifications Framework of the Slovak Republic (SKKR). It should have resulted in a clearer FoS system, creating a wider space for universities within the individual FoS for the creation of study programs. In the FoS system, each field of study has its own description defining it, while these descriptions were not compatible with their structure in the original FoS system; in many cases, they only generally defined the knowledge that the study program should provide, without specifying the level of its acquisition by graduates, etc. Some of the descriptions did not correspond to the current needs in relation to the educational outcomes and practically became a brake on higher education innovation.

The initial proposal of the Deans' Club was discussed mainly at the level of faculties by mid-2018. Subsequently, it was submitted to the University representatives for comments by mid-September 2018.

In October 2018, the Ministry of Education, Science, Research and Sports of the Slovak Republic (MESRS SR) appointed the persons to be in charge of the elaboration of draft descriptions for individual fields of study. Two members from the MESRS SR, i.e. Dr.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M., Faculty of Aeronautics TUKE and prof. Ing. Miloš Poliak. PhD for FPEDAS of the University of Žilina in Žilina, were appointed to elaborate a draft description of the new field of study „Transport“. In creating a draft description of the new field of study of Transport, close collaboration was also provided by the employees (working groups) appointed by Deans of both of these faculties, who have been developing their study programs in the field of study Transport, as well as their all subordinate FoS.

On November 26, 2018, the Dean of the Faculty of Aeronautics established, by his order, the working group of the TUKE Faculty of Aeronautics (FoA) for the creation of a description of the new field of study of „Transport“

with the aim of preparing the initial draft description of the FoS. The working group was composed of Dr.h.c. prof. Ing. Miroslav Kelemen, DrSc., MBA., LL.M., the Chairman of the working group; doc. Ing. Rudolf Andoga, PhD., the Vice-Chairman of the working group; and prof. Ing. Milan Džunda, CSc., doc. Ing. Peter Korba, PhD. ING-PAED IGIP, doc. Ing. Jozef Hudák, CSc, m.prof., doc. Ing. Karol Semrád, PhD., doc. Ing. Róbert Breda, PhD., doc. Ing. Pavol Kurdel, PhD., doc. Ing. Michal Hovanec, PhD., doc. Ing. Katarína Draganová, PhD., Ing. Róbert Rozenberg, PhD., Ing. Alica Tobisová, PhD. ING-PAED IGIP, the members of the working group.

By the end of 2018, under the leadership of guarantors of the elaboration of a proposal for a new Transport Study field (Deans of LF TUKE and FPEDAS ŽU) and the working groups of both faculties (TUKE FoA and FPE-DAS Žilina), drafts of individual descriptions were prepared and sent for further proceedings to the MESRS SR. Subsequently, the legislative process to the decree was initiated, the first step of which was the initiation of a comment procedure in order to identify possible undesirable overlaps, etc.

Within the interdepartmental comment procedure on the study field system of the Slovak Republic, the Faculty of Aeronautics responded by comments to the proposal made by the MESRS SR on the FoS system of the Slovak Republic by a letter addressed to the Ministry, in which the Faculty of Aeronautics (FoA) expressed its disagreement with the fundamental comment sent through the Slovak Rectors' Conference (SRK), the commenter from 09 April 2019. The comment concerned Annex No.2 to study field 5, Transport, raised by the Slovak University of Technology (STU) in Bratislava. The Faculty of Aeronautics expressed a fundamental disagreement with the justification of the raised comment in question and the reasons given by STU for the reassignment of the current (study field) FoS 5.2.61, Aerospace Engineering, from the previously proposed new FoS 5, Transport, to the new FoS 9, Electrical Engineering. The argument of the Faculty of Aeronautics was based on the fact that the TUKE Faculty of Aeronautics, as the only faculty in the Slovak Republic, has been the initiator of the establishment, and creator of the draft description, of the FoS 5.2.61, Aerospace Engineering since 2016. The process of creating a description, double approval in AK in 2017 and 2018, and subsequent admission to the FoS system of the Slovak Republic was successfully completed in 2018. In all these processes, the Faculty of Aeronautics was the only assisting and cooperating MESRS SR in all the required legislative acts. Neither in the mentioned process, not at any point in the designing the focus, goals or direction of the new Aerospace Engineering study program, none of the faculties of STU showed any effort to cooperate in this demanding, several years lasting process of creating a new FoS. The fundamental disagreement of the FoA with the comment raised, as well as the reasons given by the STU for the reassignment of the current FoS 5.2.61, Aerospace Engineering, from the currently proposed new FoS 5, Transport, to the new FoS 9, Electrical Engineering, was fully accepted by the Ministry, and FoS 5.2.61, LaKI, was remained as the proposed new FoS 5, Transport.

After the end of the interdepartmental comment procedure, the legislative process was completed on 22 July 2019 and, subsequently, the Decree of the Ministry of Education, Science, Research and Sport of the Slovak Republic No. 244/2019 Coll. on the Fields of Study System of the Slovak Republic was announced in the Collection of Laws of the Slovak Republic with effect from 01 September 2019 pursuant to par. 50 (3) of Act No. 131/2002 Coll. on Higher Education Institutions and on amendments to certain acts, as amended. The Decree established 48 new fields of study, in which the universities in the Slovak Republic can provide higher education.

At the TUKE Faculty of Aeronautics, the introduction of a new FoS system affected four previous fields of study, within which the Faculty had accredited its study programs:

Changes in the fields of study at the Faculty of Aeronautics			
Old field of study		New field of study	
Name	Identifier	Name	Identifier
Motor vehicles, rolling stock, ships and aircraft	5.2.4.	Machine Engineering	2381
Electronics	5.2.13.	Electrical Engineering	2675
Aerospace Engineering	5.2.61.	Transport	3772
Transport	5.2.59.		

By creating the draft description of FoS 5, Transport, and upon the proposed merger of the existing associated FoS, the Faculty of Aeronautics managed to create a new multidisciplinary FoS, Transport, which creates wide opportunities for graduates to assert in the industrial and operational practice. The newly adopted FoS, Transport, is, inter alia, compiled in an absolute balance of disciplines clearly linked to the aviation and space systems, which will allow for the full development of the promising study programs at the Faculty of Aeronautics. The newly adopted FoS System creates suitable preconditions for universities to be accredited in the future in a smaller number of logically consistent fields of study, in comparison with the narrowly defined fields of study in the past, to which the Faculty of Aeronautics also responded. The decision of the extended Dean's College of the Faculty of Aeronautics adopted a resolution on the gradual termination of studies at the Faculty of Aeronautics in the study programs falling under the FoS 36, Mechanical Engineering, and FoS 9, Electrical Engineering, according to the newly adopted system of FoS, and on the development of study programs under only one FoS 5, Transport.

Accreditation – New Study Programmes

The old study programs were accredited at the comprehensive accreditation at the Technical University in 2014.

One of the key aspects of education at the Faculty of Aeronautics is to ensure the quality of higher education and to link the content of education with the needs of the knowledge society. The content of the study programs must reflect the needs of the labour market which, in recent years, requires especially the university graduates with a high level of practical skills, able to master the new sophisticated technologies, to build on the basic theoretical knowledge of the field, and to respond flexibly to the changing conditions in the structure of jobs, to new technologies and the working environment (mobility for study, mobility for work).

The emergence of the new study programs means a continuation in the development of study programs and their accreditation so that the Faculty of Aeronautics will continue to be competitive not only in the Slovak Republic, but also in the EU.

The process of creating the new study programs began at the beginning of 2018 with the preparation of the bachelor's study program, Aerospace Engineering, which was accredited in September 2018. The students complete this study program with the education of old bachelor's degree programs Avionic Systems and Aircraft Operation, according to the choice of subjects.

The next stage of the creation of the new study programs began at the Dean's College in February 2019, at which the planned guarantors presented proposals for the names and contents of the new study programs to replace the remaining old study programs. Subsequently, commissions were established by the Dean's instruction to elaborate the documents for accreditation.

In May 2019, the accreditation dossiers were forwarded to the Rector's Office with a request to be sent to the Accreditation Commission.

In October 2019, the second-degree Aerospace Engineering study program and the third-degree Aerospace Systems study program were successfully accredited.

In December 2019, the Pilot, Air Traffic Control, and Air Traffic Management bachelor's study programs and the Air Traffic Management engineering study program were successfully accredited.

Graduates of the Aerospace bachelor's study program will be able to continue in the new Aerospace Engineering study program, which will replace the Aircraft Operation study program and the Sensors and Avionics study program. Graduates of the Aerospace Engineering program can continue in the third degree in the new Aerospace Systems study program.

The Professional Pilot, Air Traffic Controller, and Air Traffic Control bachelor's study programs were replaced by the new Pilot, Air Traffic Control, and Air Traffic Management study programs.

Graduates of the Pilot, Air Traffic Control, and Air Traffic Management bachelor's study programs can continue in the second level of study in the new Air Traffic Management engineering study program.



Field of Science, Research and Doctoral **Studies**

Scientific Board of the Faculty of Aeronautics



Meeting of the Scientific Board of the Faculty of Aeronautics on June 10, 2019 in the premises of TECHNICOM, TUKE

At its meetings in 2019, the Scientific Board (SB) of the TUKE Faculty of Aeronautics discussed 38 points focused on guiding and improving quality in the field of education, scientific research, doctoral studies, and the Faculty development. It has continued in the trend that has been introduced by the new management of TUKE FoA since its inception. TUKE FoA Scientific Board met three times in 2019. Their meetings took place on the set dates in the representative premises, which is also a positive change that occurred with the arrival of the new management of the TUKE FoA. At its meeting on March 7, 2019 in the premises of the Government Office – House of Guests in Košice, the Board discussed the direction of the new study programs of the Faculty of Aeronautics, the concept of which reflects the modern requirements of the labor market and offers students better knowledge with a greater range of asserting themselves in practice. At its meeting on 10 June 2019 in Technicom, the Board of the TUKE FoA approved the list of experts from practice, who will participate in the dissertation examinations and habilitation of the dissertations of the TUKE FoA. At its meeting on November 7, 2019 in the Hilton Hotel, the Board approved the updated version of the Rules of Procedure of the Board in connection with the implementation of changes related to the adoption of the amended laws. At the last November meeting, the meetings of the Board were approved, at which the current agenda points of the meetings for 2020 will be discussed .

Pursuant to the par. 10 (1) (e) of the Statute of TUKE FoA and Resolution of the Academic Senate (AS) of TUKE FoA No. 04/2019 dated 04 February 2019, TUKE FoA AS approved the change of the member of the TUKE FoA SB and, on 07 March 2019, prof. Ing. Josef Blažek, CSc. was ceremoniously appointed at the meeting of the Board as a new member of the TUKE FoA SB, replacing prof. Ing. Ján Piľa, Ph.D.

Pursuant to the par. 10 (1) (e) of the Statute of TUKE FoA and Resolution of the Academic Senate of LF TUKE No. 11/2019 dated 30 April 2019, TUKE FoA AS approved the change of the member of the TUKE FoA SB and, on 10 June 2019, doc. Ing. Pavol Lipovský, PhD., ING-PAED IGIP was ceremoniously appointed at the meeting of the Board as a new member of the TUKE FoA SB, replacing doc. Ing. Jozef Hudák, CSc.

Pursuant to the par. 10 (1) (e) of the Statute of TUKE FoA and Resolution of the Academic Senate of TUKE FoA No. 20/2019 of 18 September 2019, TUKE FoA AS approved the change of members of the TUKE FoA SB and, on 07 November 2019, doc. Ing. Pavol Kurdel, PhD. and doc. Ing. Monika Blišťanová, PhD., MBA, LL.M were solemnly appointed at the meeting of the Board as new members of the TUKE FoA SB, replacing doc. Mgr. Eva Komová, CSc. and Mgr. Petr Čekan, PhD.

By the resolution of the TUKE FoA SB of 07 November 2017, pursuant to the par. 1 (3) (I) of the Rules of Procedure, the TUKE FoA SB approved a new version of the Rules of Procedure on the proposal of the Chairman of the Board, whose proposals for changes were discussed at the Board meeting by members of the Board.

Overview of solved and ongoing projects

APVV PROJECTS

Project title: **Intelligent belt conveyors**

Project number: APVV- 18-0248

Solution time: 2019 -2022

Responsible researcher: doc. Ing. Karol Semrad, PhD.

Co-researchers: doc. Ing. Katarina Draganova, PhD., Doc. Ing. Miroslav Smelko, PhD., Doc. Ing. Pavol Lipovsky, PhD., Ing. Peter Gasparovic, PhD., Doc. Ing. Michal Hovanec, PhD., Ing. Peter Koščák, Ph.D., Ing. Martin Filko, Ing. Jozef Novotnak, Ing. Miroslav Spodniak, Ing. Tomas Musil

Project title: **Application of self-regulatory methods in the training of flight crews**

Project number: APVV- 17-0167

Solution time: 2018 -2020

Responsible researcher: Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M.

Co-researchers: Ing. Robert Rozenberg, PhD., Ing. Matej Antoško, PhD., PhDr. Anna Cekanova, PhD., Ing. Stanislav Durco, PhD., Ing. Peter Kaľavský, Ph.D., Ing. Jozef Sabo, PhD., Ing. Ľuboš Socha, PhD., Ph.D., Ing. Juraj Vagner, PhD.

Project title: **Dynamics of domain walls and skyrmions in thin magnetic layers**

Project number: APVV-17-0184

Solution time: 2018 -2021

Responsible researcher: RNDR. Kornel Richter, PhD. (Pavel Jozef Šafárik University in Košice, PF)

Responsible researcher for LF: doc. Ing. Pavol Lipovsky, PhD.

Co-researchers: doc. Ing. Katarina Draganova, PhD., Doc. Ing. Miroslav Smelko, PhD.

Project title: **Modern amorphous and polycrystalline functional materials for sensors and actuators**

Project number: APVV-16-0079

Solution period: 2017 - 2021

Responsible researcher: prof. Mgr. Rastislav Varga, DrSc. (Pavel Jozef Šafárik University in Košice, PF)

Responsible researcher for LF: doc. Mgr. Eva Komová, Ph.D.

Project title: **New generation of check-in system for airports**

Project number: APVV-15-0527

Solution period: 2016 - 2019

Responsible researcher: prof. Ing. Frantisek Adamcik, CSc.

Co-researchers: Ing. Jozef Galanda, PhD., Ing. Radoslav Sulej, PhD.

VEGA PROJECTS

Project title: **Interaction of magnetic fluids with electromagnetic field**

Project number: VEGA 2/0141/16

Solution period: 2016 - 2019

Responsible researcher: RNDr. Milan Timko CSc. (Slovak Academy of Sciences, IEF)

Responsible researcher for LF: doc. Mgr. Ladislav Tomco, PhD.

Project title: **Research into the usability of modern built-in contactless micro sensors to increase safety operation of aircraft composite structures**

Project number: VEGA 1/0374/17

Solution period: 2017 - 2019

Responsible researcher: doc. Ing. Miroslav Smelko, PhD.

Co-researchers for LF: doc. Ing. Karol Semrád, Ph.D., doc. Ing. Pavol Lipovsky, PhD., Doc. Ing. Katarina Draganova, PhD., Ing. Thomas Kliment and Ing. František Heško - doctoral students

Co-researchers from the Czech Republic: doc. Ing. Soňa Rusnáková, Ph.D. from the Institute of Production Engineering, Tomas Bata University in Zlín

Project title: **Influence of magnetic field and spin anisotropy on the ground state and critical behavior of two-dimensional quantum magnetic systems**

Project number: VEGA 1/0269/17

Solution period: 2017-2020

Responsible researcher: doc. Mgr. Alžbeta Orendáčová, DrSc. (Pavel Jozef Šafárik University in Košice, PF)

Responsible researcher for LF: RNDr. Katarina Tibenska, PhD.

Project title: **Transfer of knowledge from laboratory experiments and mathematical models to the creation of a knowledge system for assessment of the quality of environmentally friendly conveyor belts**

Project number: VEGA 1/0577/17

Solution period: 2017 - 2020

Responsible researcher: prof. Ing. Daniela Marasova, CSc. (Technical University of Košice, F BERG)

Responsible researcher for LF: Ing. Peter Koščák, Ph.D. ING-PAED IGIP

VEGA PROJECTS

Project title: **Computer model of integration of chemosensory modules and motor module of neural network C. Elegans**

Project number: VEGA 2/0043/17

Solution period: 2017 - 2020

Responsible researcher: Ing. Mgr. Marek Dobeš, Ph.D. (Slovak Academy of Sciences, CSPV)

Responsible researcher for LF: doc. Ing. Rudolf Andoga, PhD.

Project title: **Experimental research of stress-strain states of rubber composites used in mining and processing raw materials**

Project number: VEGA-1/0429/18

Solution period: 2018 - 2020

Responsible researcher: Ing. Ľubomír Ambriško, Ph.D. (Technical University of Košice, F BERG)

Responsible researchers for LF: Ing. Peter Koščák, Ph.D. ING-PAED IGIP, doc. Ing. Karol Semrad, PhD.

KEGA PROJECTS

Project title: **Design of a specialized training concept focused on the development of experimental skills within education in the field of logistics**

Project number: KEGA 009TUKE-4/2016

Solution period: 2016 - 2019

Responsible researcher: prof. Ing. Daniela Marasova, CSc. (Technical University of Košice, F BERG)

Responsible researcher for LF: Ing. Peter Koščák, Ph.D. ING-PAED IGIP

Project title: **Intensification of molecular-proteomic biology methods in the field of study 5.2.47 Biomedical engineering**

Project number: KEGA 069TUKE-4/2017

Solution period: 2017 - 2019

Responsible researcher: doc. Mgr. Marianna Trebuňová, Ph.D. (Technical University of Košice, FME)

Responsible researcher for LF: RNDr. Kristína Budajova, PhD.

Project title: **Creation of teaching aids for specialized magnetometry laboratory**

Project number: KEGA 052TUKE-4/2018

Solution period: 2018 - 2020

Responsible researcher: doc. Ing. Pavol Lipovsky, PhD.

Co-researchers: doc. Ing. Katarína Draganova, PhD., Ing. Jozef Černan, PhD., Doc. Ing. Rudolf Zahradnicek, CSc., Doc. Ing. Jozef Hudák, PhD. m.prof., Ing. František Hesko, doc. Ing. Václav Moucha, CSc.

Project title: **Aerospace sensors for the control of unmanned intelligent objects with protection subsystems and security and its implementation in the development of the educational environment**

Project number: KEGA 058TUKE-4/2018

Solution period: 2018 - 2020

Responsible researcher: doc. Ing. Václav Moucha, CSc.

Co-researchers: doc. Ing. Katarína Draganova, PhD., Doc. Ing. Pavol Lipovsky, PhD., Ing. Miroslav Smelko, PhD., Doc. Ing. Jozef Hudák, PhD. m.prof., Ing. František Heško

Project title: **Small unmanned aircraft - a platform for education in the field of intelligent avionics systems**

Project number: KEGA 044TUJE-4/2019

Solution period: 2019 - 2021

Responsible researcher: doc. Ing. Rudolf Andoga, PhD.

PROJECTS FINANCED FROM STRUCTURAL FUNDS

Project title: **Support for research and development potential in the field of vehicles**

ITMS project code: 313011T557

Provider: Research agency

Solution period: 2016 - 2019

Responsible researcher: doc. Ing. Karol Semrad, PhD.

Co-researcher organization: Faculty of Electrical Engineering and Informatics TUKE

Co-researchers: doc. Ing. Katarína Draganova, PhD., Doc. Ing. Rudolf Andoga, PhD. doc. Ing. Ladislav Főző, PhD., Doc. Mgr. Ladislav Tomčo, PhD., Doc. Ing. Jan Labun, PhD., Doc. Ing. Peter Korba, PhD., Doc. Ing. Miroslav Smelko, PhD., Doc. Ing. Pavol Lipovsky, PhD., doc. Mgr. Eva Komová, Ph.D., RNDr. Katarína Tibenska, Ph.D., Doc. Ing. Václav Moucha, CSc., Doc. Ing. Jozef Hudák, CSc., Doc. Ing. Róbert Bréda, PhD., Ing. Marek Českovič, Ph.D., doc. Ing. Pavol Kurdel, PhD., Ing. Martin Schrötter, PhD., Prof. Ing. Milan Džunda, CSc., Doc. Ing. Michal Hovanec, PhD., Ing. Peter Gasparovic, PhD., Ing. Marián Hocko, PhD., Ing. Samuel Bucko, PhD., Ing. Martin Matis, PhD., Prof. Ing. Josef Blazek, CSc., Ing. Maria Jozekova, Ing. Barbora Kovacova, Ing. Peter Jozek, PhD., Olga Kizekova

Project title: **New possibilities and approaches of optimization within logistic processes in the field of transport and transport systems**

ITMS project code: 313011T567

Provider: Research agency

Solution period: 2016 - 2019

Responsible researcher: prof. Ing. Gabriel Fedorko, PhD. (BERG)

Responsible researcher for LF: Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M.

Co-researchers: doc. Ing. Monika Blišťanová, doc. Luboš Socha, PhD. & PhD., Doc. Vladimír Nemec, PhD., Ing. Radoslav Sulej, PhD., PhD., MBA, LL.M., Ing. Iveta Vajdova, PhD., Ing. Robert Rozenberg, PhD., Dr.h.c. prof., Ing. Miroslav Kelemen, DrSc., MBA, LL.M., Ing. Matej Antoško, Ph.D. ING-PAED IGIP, Ing. Stanislav Durco, PhD., Ing. Peter Kaľavský, Ph.D., Ing. Jozef Sabo, PhD., Ing. Juraj Vagner, PhD., Ing. Peter Čekan, PhD., Ing. Alica Tobis, PhD. ING-PAED IGIP, Ing. Dorota Liptáková, PhD., Ing. Peter Koščák, Ph.D. ING-PAED IGIP, Ing. Jan Kolesar, PhD., Ing. Edina Jenčová, PhD., Ing. Lucia Melníková, Ph.D., Ing. Peter Hanak, PhD., Ing. Jozef Galanda, PhD., Ing. Lucia Vargova, RNDr. Peter Szabó, PhD., Peter Guzikiewicz, Ing. Martina Melicherová

FOREIGN PROJECTS

Project title: **Simulation of interventions in air accidents**

Project number: VH20172019027

Grant provider: Ministry of the Interior of the Czech Republic - Security Research Program for the Needs of the State 2016-2021

Solution period: 2017 - 2019

Project coordinator: prof.h.c. doc. Ing. Vladimír Nemec, Ph.D.,

Co-researchers: University of Pardubice (Czech Republic), University of West Bohemia in Pilsen (Czech Republic)

Co-researchers of the project for LF: Dr.h.c. prof.h.c. doc. Ing. Stanislav Szabo, PhD., MBA, LL.M., Ing. Lucia Melníková, Ph.D., Ing.

Iveta Vajdová, PhD., Ing. Alica Tobis, PhD. ING PAED-IGIP, Ing. Edina Jenčová, Ph.D., Mgr. Branko Mikula, Ing. Bc. Stanislav Szabo, MBA, Ing. Daniel Blaško, PhD., MBA, Ing. Maria Melnikova, Mgr. Martina Melníková.

Project title: **Boosting European Security Law and Policy: Focus on flows of migrants, data security and movement of capitals**

Project number: 599763-EPP-1-2018-1-IT-EPPJMO

Grant provider: Erasmus + Program - Jean Monnet Activities

Solution period: 2017 - 2020

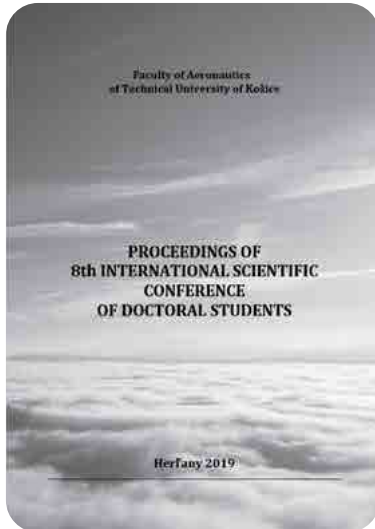
Project coordinator: Marco Ventura (Università 'Segli studi di Siena, Italy)

Co-researchers: Matej Bel University in Banská Bystrica

Responsible researcher for LF: Dr. h. c. prof. Ing. Miroslav Kelemen, DrSc., MBA, LL.M.

Conferences

- ✓ **OBJECTIVE:** Organize international scientific conferences and seminars; once a year organizes the conference of doctoral students and young scientific workers.
- ✓ **EVALUATION:** These happenings were organized in the year 2019:



- On May 2nd and 3rd 2019, the 8th International Academic Conference of young scientific workers was held on educational-training premises in Herlany, under the auspices of Dr. h. c. prof. h. c. Doc. Ing. Stanislav Szabo, PhD., MBA,LLM. Among the main priorities of the new faculty management is the support of doctoral studies and young scientific-pedagogical workers. Lively debates about present-day issues in science and research, as well as current trends in the field of aviation, are the proof of the importance of such conferences for our PhD students. The Dean of the faculty underlined in his speech: 'We believe that this generation of our young colleagues will be the solid basis for generational change which we started at our faculty'.



There were 55 registered participants at the conference, 54 of them were from AF TUKE and one out of TUKE. 24 contributions were published in the conference directory.



- On September 26th-27th'2019, 14th International Scientific Conference of New Trends in Aviation Development (NTAD 2019) took place in the old castle Karlova Koruna in cooperation with Pardubice University.. The main conference guarantors were the dean of the Faculty of Aviation Dr. h. c. prof. h. c. Doc. Ing. Stanislav Szabo, PhD., MBA,LLM., and the dean of the Faculty of Transport University of Jan Perner in Pardubice. doc. Ing. Libor Svadlenka. The main goal of the conference was to organize an international forum for the presentation of the latest progress in the field of air transport management, aircraft design and aviation technologies, and also how to deal with the issues of education, management, policy, planning and aviation, which all together have an impact on the direction of aviation industry. Another goal of the conference was to offer a venue where researchers, system developers, managers, and business aviation developers of the government and academic world could interact with the aim to share knowledge and practical experience.



44 registered participants, 15 of them from Hungary, 2 from Poland, 6 from the Czech Republic. 44 articles were accepted and then successfully indexed in IEEE and SCOPUS databases.

- The conference of 'Air space for everybody and aviation navigational services of 2019' took place in the premises of Educational-training centre of Technical University Kosice in Herlany on November 12th and 13th 2019, under the auspices of Dr. h. c. prof. h. c. Doc. Ing. Stanislav Szabo, PhD., MBA, LL.M., Ing. Blazej Zaujec, the director of Air Traffic Services of SR and the chairman of the Transport Authority Ing. Jan Breja. The conference brought together the top representatives of Slovak civil and military aviation organizations and associations. Representatives from LAA in the Czech Republic participated at the conference for the first time. The number of registered participants was 47: 21 of them came from the Faculty of Aviation TUKE and 26 were from other places.



- The conference MOSATT was held on November 28th and 29th 2019. Professionals from Slovakia, the Czech Republic, Hungary, Ukraine and other countries presented and discussed current topics and issues not only from the aviation sphere. The conference was carried out under the auspices of Dr. h. c. prof. h. c. Doc. Ing. Stanislav Szabo, PhD., MBA, LL.M.



The number of conference registered participants was 42; 33 of them came from the Aviation Faculty and 9 were not university members. There were 32 professional contributions published in the conference directory.

Conferences - sponsors:

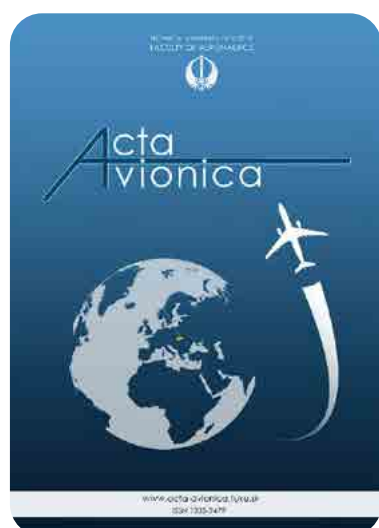
International scientific conference NTAD 2019	
General partner	Czech Air Service Inc.
Gold partners	Aviation repairs shops Trencin, Air traffic services of SR, s.e.Bratislava
Event partners	IEEE Czechoslovakia Section; SLOVAK TRAINING ACADEMY; HELI COMPANY; SFUL - Slovenská federácia ultraľahkého lietania; European air services; Lynx; Syteli; Institut Jana Pernera
Under the auspices	Faculty of Aeronautics TUKE, University Pardubice

International scientific conference MOSATT 2019	
Partners	Air traffic services of SR,s.e.Bratislava; ALES-ICZ Group;ERA; R-RYS; Transport Authority; TECHNI Serv

Conference Airspace for All 2019	
Partners	Air traffic services of SR,s.e.Bratislava; TECHNI Serv; Czech Air Service Inc.; ALES Trencin; Syteli

International Scientific Conference of Doctoral Students 2019	
Partners	Air traffic services of SR,s.e.Bratislava; European air services; SLOVAK TRAINING ACADEMY; Raytheon; FS Borievka

- ✓ **OBJECTIVE:** Publish a scientific journal ACTA AVIONICA (at least two issues a year).
- ✓ **EVALUATION:** In 2019 we published two issues of the 21st year of publishing the journal in accordance with the prescribed harmonogram.



- Vol.21.No.1(2019) was issued in June 2019, 10 articles were published after a successful preview procedure. The authors of the articles came from Poland, the Czech Republic and Slovakia.
- Vol.21.No.2(2019) was issued in December 2019. 8 articles by the authors from Belgium, Poland, the Czech Republic, Hungary and Slovakia, were published after a successful preview procedure
- During the year 2019 process changes and preview procedure were made in the management of the journal. Editorial board updated procedures in accordance with copyright protection and staff assurance.

- ✓ **OBJECTIVE 2019:** The aim of Acta Avionica Editorial board was to strengthen the standards and quality of the journal's management and also their published articles. The journal is issued by the Faculty of Aeronautics TUKE in Kosice.
- ✓ **EVALUATION:** Planned process changes were realized in the management and preview processing for the journal in 2019. The technical editors worked on possibilities to extend the registration of the journal Acta Avionica into the registration agency Crossref as an identifiers manager of Digital Object Identifier System (DOI) of the International DOI Foundation company. After achieving the identifier DOI, the journal was sent for registration to the Directory of Open Access Journals (DOAJ). At present it is in the process of assessment. The Editorial board created proposals for reinforcement of the international cooperation and presentation of scientific works within multidisciplinary authors teams, in the journal. At present the journal is indexed in the databases of Index Copernicus International, Research Bible, Google Scholar, International DOI Foundation and Crossref.



- ✓ **OBJECTIVE:** Organization and increase of the level of the competition SVOC- Student Scientific Professional Activity- 2019.
- ✓ **EVALUATION:** In AR 2018/2019, the competition of the best student scientific work was held on April 3rd, 2019. The aim of the competition was to find and support those students who were interested in aviation issues, in greater extend of aviation technics, over the frame of the basic content of the study at the Faculty of Aeronautics.



Faculty Direction in the Field of Science and Research

Activities included in the field of science and research are one of the key activities at the Faculty of Aviation, TUKE, in addition to education. In the field of science and research, the Faculty of Aeronautics is based on the Long-Term Development Plan of the TUKE Faculty of Aeronautics for the years 2016-2023 and, on this basis, they modified, set and specified their internal goals and tasks for 2019 in the „Plan of Main Tasks of the Faculty of Aeronautics TUKE for 2019“ in order to clearly define the directions of further development of science, research and publishing activities. The permanent goal of the Faculty in the field of science and research in 2019 was to strengthen the position of the Technical University in Kosice as a leading and recognized research university not only in Slovakia, but also abroad.

Seeking to make the maximum use of the existing infrastructural, but especially scientific and pedagogical potential of the Faculty staff, our joint effort in 2019 was to create conditions for successful management of the existing science and research projects, but also to create suitable conditions for submitting proposals for the new domestic, but above all international projects. This effort resulted in the historically highest number of the submitted projects where, for the first time in the history of the Faculty of Aeronautics, two HORIZONT 2020 international projects were even submitted. Another significant contribution in this area in 2019 was the historically highest number of the solved science and research projects in the history of our Faculty (23 projects). In 2020, the Faculty management will strive to increase the number of scientific and pedagogical staff of the Faculty of Aeronautics TUKE involved in solving the research projects not only in the conditions of our Faculty, but also in cooperation with other TUKE faculties and other external academic institutions and organizations.

Taking into account the significant impact of the publishing activities on the allocation of grant funds of TUKE to faculties not only to the chapter of Science and Research, but also to the chapter of Pedagogy, another of the priority goals was to improve and increase publication outputs, especially in the so-called focal publications, raising the qualifications of professional assistants and researchers and the related fulfilment of criteria for initiating habilitation and inauguration proceedings, and providing active support of doctoral students. In these monitored areas, we also achieved significant qualitative shifts in 2019. In the area of publication outputs, in the priority categories of publishing activities from the point of view of the methodology of the breakdown of subsidies defined in the TUKE Quality Objectives for 2019, categories ADC, ADD and AGJ, we achieved the historically highest number of outputs (19 outputs) which, inter alia, helped to significantly increase the citation indices of many Faculty employees and, last but not least, it will have a positive effect on the increase in subsidy resources for the Faculty of Aeronautics in the coming years. Thanks to two successful habilitation procedures at the Faculty of Aeronautics, we also achieved one of the highest numbers of pedagogical employees of the Faculty of Aeronautics at the associate professor position (20 associate professors) in the area of improving the qualification structure.

The successful fulfilment of the above cited goals was also supported thanks to the continuation in the established trend introduced in 2018 in view of the successful indexation of collections from the international scientific conferences, which were organized under the auspices of the Faculty of Aeronautics. In 2019, these were the international scientific conferences „New Trends in Aviation Development (NTAD 2019)“ and „Modern Safety Technologies in Transportation (MOSATT 2019)“, the collections of which were indexed in the IEEE Xplore Digital Library, SCOPUS and Web of Science databases. The above-mentioned ability to successfully index two conference proceedings under the auspices of the Faculty of Aeronautics in the important international citation databases in one calendar year was a historic success, which we managed to achieve for the first time since the establishment of the Faculty of Aeronautics. For this effort, we would especially like to thank doc. Ing. Rudolf Andoga, PhD. and doc. Ing. Ladislav Fozo, PhD., who were the main editors of these collections.

Also in 2020, the priorities of the Faculty of Aeronautics will include a support of international cooperation in science and research with the important foreign partners, in order to develop international cooperation in science and research, support the mobility of academics, support the mobility of external partners, including the admission of foreign academics and research staff, organize international scientific conferences, including a conference of doctoral students and young researchers, and expand the partnership of the Faculty of Aeronautics in the international aviation organizations (EASN, PEGASUS).



Field of development and promotion

Promotion represents a key pillar of each organization, the goal of which is to increase the brand awareness among professional and general public, gaining supporters and eventually some potential candidates who would like to be accepted into its ranks. The Faculty of Aeronautics is no exception, because its main goal, within promotion, is to trigger the high school students' interest in aviation and space technologies, what could lead to their applicable and interesting working career.

An integral part of attractive study programs promotion is their continuous development as well as the development of the faculty itself, when bringing together both domestic and international professional communities. On the basis of that, the potential candidates and current students could see the applicability and relevance of study programs at labour market.

Cooperation of the Faculty of Aeronautics with domestic and foreign partners in academic and commercial spheres, based on innovation of educational, scientific and research processes, represents the priority needs and direction of the faculty.

Generating strong connections and mutually beneficial relations in both directions, creates noticeable and forward-looking development. It is followed by better quality of educational, scientific and research process and creates strong argumentation tools for promoting and marketing activities.

On the managing posts for development, promotion and cooperation were active:

- Ing. Mária Jozeková
- Ing. Edina Jenčová, PhD.
- Ing. Matej Antoško, PhD., ING-PAED IGIP
- Ing. Marek Češkovič, PhD.
- Ing. Samer Abdo Saleh Al-Rabeei, PhD.

Main objectives in the field of promotion:

- Active participation at promotional actions for high school students.
- Active participation in aviation and airspace events organized for both professionals and general public.
- Make the brand of the Faculty more attractive in on-line space.
- Innovation of promotional materials.

Main objectives in the field of cooperation:

- Active communication with the present partners of the Faculty of Aeronautics.
- Approaching and contacting new potential partners for cooperation
- Launching of the processes and realization of entering the associating organisations in the area of aviation and airspace technologies at home and abroad.

Main objectives in the field of development:

- Organization of social events for the members of the Faculty of Aviation
- Modernisation of the Faculty campus
- Modernisation of the information technologies

The field of promotion

Promotion of the Faculty of Aeronautics continued in 2019 by participating at established and general public well-known events, the main goal of which was addressing the high school students, and increases the visibility of the faculty brand in the eyes of the general public. In that year the members of the faculty joined promotional activities and contributed in increased visibility of the Faculty of Aeronautics. In an attractive way they interpreted and promoted the uniqueness of education provided by this institution.

In that year, promotional activities showed the increased number of events and the higher quality forms of promotion. The Faculty of Aeronautics presented itself in these events:



1. Study Abroad

Kyiv, Ukraine

Mgr. Peter Čekan, PhD.

April 12th – 13th, 2019

2. International Aviation Exhibition AERO Friedrichshafen

Friedrichshafen Germany

doc. Ing. Miroslav Šmelko, PhD.

Ing. Jozef Novotňák

April 8th – 18th, 2019



3. Festival of Aviation, Piestany

Piestany Airport

Mgr. Peter Čekan, PhD.

Zdenka Šutáková

May 4th- 5th, 2019

4. Memorial flight M.R.Štefánik 2019

Lucenec – Piestany

M.Eng.Ing. Marek Košuda

Ing. Bc. Stanislav Szabo, MBA

April 30th – May 5th, 2019



5. SIAF 2019

Sliac Airport

Dr.h.c. prof.h.c. doc. Ing. Stanislav SZABO, PhD.,
MBA, LL.M

Ing. Bc. Stanislav Szabo, MBA

Mgr. Peter Čekan, PhD.

Zdenka Šutáková

M.Eng.Ing. Marek Košuda

August 2nd – 3rd, 2019



6. Kosice Aviation Days 2019

Kosice Aeroklub

M.Eng. Ing. Marek Košuda, Ing. Sebastian Makó,
Ing. Jozef Novotňák, Ing. Martin Filko,
Ing. Nikola Staříčná, Matúš Šteuček,
Pavol Nazarej, Bc. Katarína Gombíková
September 7th -8th , 2019

7. Gaudeamus: Education Fair, Brno

Brno, Czech Republic

Bc. Patrik Kašper

Bc. Martin Pitoňak

October 22nd – 25th, 2019



8. Gaudeamus: Education Fair, Nitra

Bratislava

Ing. Martin Schreiner

Ing. Jakub Leško

November 5th - 6th, 2019



9. Study Abroad: Education Fair

Kyiv, Charkov, Ukraine

M.Eng. Ing. Marek Košuda

Bc. Viktória Kurrina

Pavlo Olenych

November 14th - 18th, 2019



Activities of the Faculty of Aeronautics at home and abroad



1. Handing over the financial collection to Children's Home in Svidnik March 15th, 2019

In 2019 the employees of the Faculty of Aeronautics thought about people who needed a helping hand

2. Welcoming of the students from Charkov June, 11th, 2019

There is nothing more gratifying than the active interest in the Faculty study. In 2019 we welcomed high school students from Charkov (Ukraine), who came to see with their own eyes how the study at the Faculty looks like.



3. Children's University July 15th - 19th, 2019

We had a chance to give a close look at the modern world of aviation and airspace technologies to the smallest.

4. Filming a documentary about Jan Bahyl October 25th

We can find many innovators, explorers, researchers and inventors in the Slovak history. It is said, that one of them is Jan Bahyl, who constructed the first helicopter. Our authors showed in the document how the world was pushed ahead from the time of Bahyl's ideas.



Invited lectures

Every year we bring lectures of successful former graduates to our students, but also to the general public, experts from practice as well as important personalities from the field of aviation and cosmonautics. The year 2019 brought to Aeronautical faculty two cosmonauts with unique stories, but few cosmonauts can say that during the mission had to follow political developments at home, as this was closely linked to their return to Earth. We welcomed a two-time astronaut and scientist who provided an interesting look at the possibilities of life on the planet Mars as well as the discovery of the universe.

In 2019, the Slovak Republic commemorated the death of one of the greats of its history, whom he subsequently the Slovaks chose as the greatest Slovak. The name Milan Rastislav Štefánik, for the Faculty of Aero-nautics, in many respects belonged to one of its successful predecessors, M.R. Štefánik was not only a diplo-mat but also a passionate pilot and last but not least, his name was borne by the space mission, which in 1999 brought the first Slovak cosmonaut and a graduate of the Košice Aviation School into orbit, Ivana Bella. On this occasion, the first Slovak, the astronaut, brought closer the preparation for the mission itself. He focused on Slovak scientific experiments, which they carried out on board of a spaceship and shifted the knowledge of humanity a little further. In October, we welcomed the American astronaut Dr. Mary Ellen Weber, who came to talk about the current direction of the US space program as well as to bring where technologies have moved since she was an active astronaut on two space missions. She had a discussion with students about the near and far future of the colony on Mars and the technological progress that is needed to achieve this.

We closed the year with a significant visit by the last cosmonaut of the Soviet Union, Anatoly Pavlovich Arce-barsky, who during their five-month mission, together with another member of the Mir EO-9 mission, constructed mast with space station position control system. The EO-9 mission carries not only great technology progress in the construction of structures in open space but also a historical connection with the attempted coup in the year 1991, which accelerated the disintegration of the Soviet Union. Slovakia decided in 2019 to purchase new F-16 military fighters and also completed delivery of helicopters UH-60M. The Air Force is forming a new concept of how they will implement new technology, which will require not only experienced professionals but also young workers. Also in this new stage of the Slovak Air Force has found its place, the Faculty of Aeronautics, which in addition to training professional staff of civil aviation continues its long tradi-tion of training young experts for our air force.

In 2019 we were visited by the Commander of the Air Force, Major General Ľubomír Svoboda, who introduced our students to career opportunities in the Air Force and discussed with young cadets of the Armed Forces Academy, who study at the Faculty of Aviation as part of their professional training.





Field of **cooperation**

One of the fundamental pillars of a successful organization is an active and constant cooperation with partners at home and abroad, from academic and private sphere. Each year the Faculty of Aeronautics builds new relations that have to help not only scientific-research activities, but also deliver opportunities for students in the form of study stays and professional guidance with the perspective of the practice during writing bachelor and diploma thesis.

Agreements and memoranda of cooperation, sponsorship activities

ALES - MEMBER OF ICZ GROUP



Based on a cooperation agreement between the TUKE Faculty of Aviation and the company ALES - Member of ICZ Group, Faculty of Aviation in 2017 received for use two air traffic control workstations (1x instructor's station / pseudopilot and 1x student's workplace), which contained ALES software, LETVIS version 4. The workplaces were intended for teaching purposes in the study program Air traffic control worker and to practice practical skills for participants of the ATCO basic training course.

The TUKE Faculty of Aeronautics performed testing of the LETVIS software user interface version 4 and after incorporating the comments of the Faculty of Aeronautics by ALES in 2018, it upgraded software from version 4 to LETVIS software version 5.

In 2019, ALES put two air traffic control desks to the use of the TUKE Aeronautical Faculty, in which computer technology with the current version of the LETVIS version 5 system was installed, with inclusive communication interface.

At present, these two innovated workplaces are intended for teaching purposes in the study program air traffic control and the training of practical skills for participants in the ATCO Basic Training Course; and ATCO-MIL basic training course.

Letové prevádzkové služby, š.p. (Air traffic services, š.p.)



Air traffic services, š.p. and the Faculty of Aeronautics signed an agreement on advertising and promotion activities, the intention of which was the presentation of LPS, š.p., visibility of activities and the state enterprise as well as approaching the employment of graduates in one of the most profitable companies in Slovakia in order to reach potential applicants and the general public. The table below shows events at which LPS, š.p. were presented.

Ready4Aero



In 2019, the Faculty of Aeronautics started cooperation with Ready4Aero in building a common simulation flight simulator centers in the premises of the Department of Flight Training, which will contain five flight simulators for academic, research and training activities.



Start of demolition work and moving of flight simulators



Loading flight simulators in Paris



Signing contracts with partners of the Faculty of Aeronautics

Cooperation agreements year 2019			
National Aviation University of Kharkov	15/5/2019	indefinite	Szabo Stanislav Nechyporuk Mykola
FED PJSC	15/5/2019	indefinite	Szabo Stanislav Popov Viktor Vasiljevič
AERO VODOCHODY AEROSPACE a.s.	6/8/2019	indefinite	Szabo Stanislav Hoda Jakub
AEROTEAM , s.r.o.	18/9/2019	indefinite	Szabo Stanislav Klímek Vítězslav
EDIS vvd	7/6/2019	indefinite	Szabo Stanislav Blažek Josef
KOLATERAL, s.r.o.	6/8/2019	indefinite	Szabo Stanislav Hanúsek Marek
Czech Aviation Service SpA	23/4/2019	indefinite	Szabo Stanislav Utinek Jan

Memoranda of Cooperation 2019			
Czech Aviation Service SpA	17/10/2019	indefinite	Szabo Stanislav Popelka Jan
3IPK, China-CEEC, DECENT, Slovak organization for space activities, SPACEMANIC, ZBOP	13/12/2019	indefinite	Stabo Stanislav Michalko Matej Zamecnik Juraj Kapus Jakub Straka Tibor

Internationally successful year for the Faculty of Aeronautics

Aviation, aerospace is a global and complex industry in which numerous and diverse industries and institutions are involved. Building international relations must be one of the priorities of any institution willing to operate successfully and grow in this dynamic environment. Faculty of Aeronautics, Technical University in Košice with its more than 60 years of history, is one of the established brands in the field of education and training of aviation personnel. In recent years, it has also joined a narrow group of Slovak shaping institution activities in the field of space technology in Slovakia.



Successful operation in the field of satellite technology development, which Aeronautical faculty actively dedicates itself from the skCUBE project in connection with the new study program aerospace technology led to the admission of the Faculty of Aeronautics of the Technical University in Košice as the first Slovak institution to a major International Astronautical Federation (IAF), which has been around for more than 60 years, has been coordinating and bringing together actors involved in the development of space technologies for many years and assists in the formation of young professionals in academia and commerce sector. Connection with an institution uniting almost 400 entities from all over the world brings several key benefits such as the visibility of the Technical University in Košice in the field of space technology and ranked delegate in selected technical groups gaining experience in shaping and operating in international projects and teams.

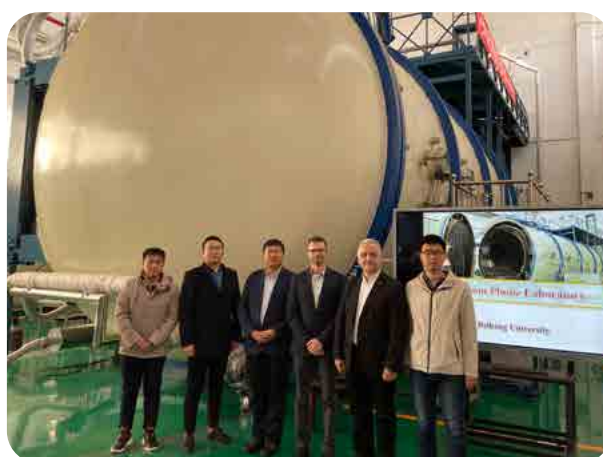


In the field of aviation education, the Faculty of Aeronautics has managed to enter the international field of ALICANTO, whose main task is to increase the mobility of not only new graduates, but also to help students and educational institutions become more global thinking. ALICANTO also works with many stakeholders not only from the College but also from the governmental and commercial sectors to ensure that the next generation of aviation professionals will meet the needs of aviation industry.





The year 2019 was closed by the Faculty of Aeronautics by participating in the annual meeting of the Regional Space Science and Research Center in Beijing, under the auspices of the United States unites developing countries and helps to train young professionals. In order to fulfill its main goal, it is headquartered at Beihang University (BUAA), which is one of the key scientific research institutions of the People's China Republics involved in the space program. At the invitation of the Director of the Regional Center and Dean of BUAA International School Professor Weng-a delegation the Faculty of Aeronautics has opened negotiations on future cooperation focusing on scientific student internships and potential directions for joint research.



Visits at home and abroad

Research internships and stays are an excellent opportunity to implement individual research programs, to develop skills, gain new experiences, encourage creativity and find new project and scientific-pedagogical partners. An example was keeping the active relationships for scientific research development was the visit of Mrs. Heizlerná Bakonyi Viktória and Mr. doc. Illés Zoltán, from the Department of Media and Informatics Education, Faculty of Informatics from the elite Eötvös Loránd University (ELTE) in Budapest, with which RNDr. Peter Szabó, PhD cooperates.

In building new relationships, we are also heading to exotic countries, which in the field of aviation and cosmonautics rank among the world's best. Just a visit of Professor WenJiang Yang from Beihang University in China of the People's Republic, which operates at the Department of Astronautics, has launched one of the most important steps in the next development. The result was the admission of representatives of the Faculty of Aeronautics at Beihang University at the end of 2019. Another successful foreign visit was the scientific internship of doc. Mgr. Volodymyr Polishchuk, PhD. at the Faculty of Aeronautics, Technical University in Košice, which he graduated with a grant from the SAIA agency, at the Department of Flight Training.



Cultural and social life at the Faculty of Aeronautics



35th Ball of the FoA

An integral part of the beginning of each year is the ball season. The Faculty of Aviation has started in 2019 with its 35th Air Ball of the Faculty of aeronautics, which followed the successful ball of the year 2018 and brought a unique social and cultural experience for the team of the Faculty of Aeronautics, students and invited guests.

Bowling tournament

It is already common on the occasion of Teachers' Day activity bowling tournament of the faculty team, where in sports and good fun they strengthen interpersonal relationships and remind themselves of a healthy form of competition that helps in individual and the collective development.



Excursion of students of the Faculty of Aeronautics - SLOVAK TRIP

The excursion was not focused on one specific expertise in the aviation industry, but from the beginning was conceived as a broad-spectrum. Therefore, it was open to all faculty students, regardless of the study program or degree of study.

Employee and students of the Faculty of Aeronautics football tournament

A slightly sportier event that connects teachers and students outside the laboratories and the apprenticeship is an annual football tournament. It is an informal meeting where you are in a friendly and a relaxed atmosphere, will measure your sports talent and all members of the team of the Faculty of Aeronautics.





Sports day of the Faculty of Aeronautics

In September 2019, all employees met at sports day of the Faculty of Aeronautics where they competed in teams in unconventional sports, whose task was to test physical fitness and coordination.

Christmas party of the Faculty of Aeronautics

The end of a very successful year in 2019 was the Christmas party at which the team of Aeronautical faculty met in a friendly and relaxed atmosphere to celebrate the end of the year together.



Development of the infrastructure of the Faculty of Aeronautics

Improving the infrastructure for teaching as well as the premises of the Faculty of Aviation is ongoing and the restoration of the environment inside and around the buildings underwent noticeable changes in 2019 as well. It was one of the most significant changes renovation of building 15, new sidewalk at the dean's office of the faculty, start of renovation of the hangar and renovation of the rear tract of the building 19.



The extensive renovation of building 15, financed by the Slovak Training Academy, brought to the complex new impression.

New professional courses of the Faculty of Aeronautics

In 2019, the Faculty of Aeronautics introduced short-term, medium-term or long-term professionalism into its offer, courses designed to expand or acquire new knowledge, skills and competences for participants in the next education, from a basic, sustaining or retraining course.

A specific educational offer is education in a wide range of “AVIATION PROFESSIONAL COURSES” adapted to each tenderer according to the specific requirements and needs, in relation to each other. The aim is to provide flight training from beginner to the required professional level in the selected field. To achieve maximum flexibility, a faculty audit system has been put in place to prepare a specific development plan and education for specific students or even for whole study groups.

Basic professional courses have been introduced into the offer:

- Aviation English courses, which are aimed at expanding and improving the language skills of candidates as required by ICAO;
- a theoretical training course within the scope of the requirements of a Private Pilot License;
- theoretical training course in the range of requirements of a commercial pilot of helicopters / airplanes (Commercial Pilot License);
- theoretical training course in the scope of the selected subject according to the requirements of a private helicopter pilot / Airplanes (Private Pilot License) or a Commercial Pilot License;
- the General Aviation Maintenance Technician course Course “Gen_T”.



In 2019, it took place in the premises of the Department of Flight Training in cooperation with the general partner of the Faculty of Aeronautics, the Slovak Training Academy theoretical training of 54 students, future aviation Afghan Air Force technicians. As part of the course theoretical training pilot lecturers of the Department of Flight Training as well trained 60 future pilots of the Afghan Air Force.

Our participation in scientific conferences in 2019



New Trends in Aviation Development Conference
(Chlumec nad Cidlinou, Czech Republic)



ALICANTO Conference
(Montreal, Canada)



IAF Congress
(Washington, D.C., USA)



Safety and Security Conference 2019
(Prague, Czech Republic)



ISSA International Symposium on Sustainable Aviation
(Budapest, Hungary)



Aeronautical Science Bulletins XXX. year
(Szolnok, Hungary)



Conclusion

CONCLUSION

In 2019, the Faculty of Aeronautics continued, under a clearly defined and agreed concept of the Faculty development and the associated Plan of Main Tasks, in improving higher education in all three levels of education with the aim to ensure that students of the Faculty of Aeronautics develop and acquire relevant knowledge and skills necessary for their successful application on the labour market. Even in 2019, increasing the quality and modernization of the system of education, the training and research activities in terms of content, as well as in the area of management, financing and evaluation, remained the permanent goals set by the new management of the Faculty in 2017. The mentioned concept of the Faculty fully fitted into the concept of the Technical University in Kosice, which has the status of a research university with a proper and continuous effort to meet the corresponding standards, creating suitable preconditions for meeting, inter alia, the demanding requirements for obtaining a much better evaluation in the process of the next accreditation for the Faculty of Aeronautics than in the last complex accreditation in 2015.

Being aware of the importance of the quality publication outputs in the recognized impact periodicals, our effort in 2019 was to motivate the scientific and pedagogical staff to create demanding engineering works, file patents, as well as develop modern technologies that will enhance domestic, and increase the international, prestige of our Faculty. Our efforts resulted in the historically highest percentage at the level of almost 20% of key publications (the most subsidized categories) of the total number of registered publications in the TUKE University Library in 2019. The increased international impact of the results of the scientific-research and creative activities of the scientific and pedagogical staff of the Faculty of Aeronautics is evident in this positive trend, including a noticeable increase in citations and responses. The significantly higher involvement of doctoral students in the creation of quality publication outputs is also gratifying. However, we have still not slowed down in our efforts to develop our Faculty of Aeronautics as an institution with a high level of research work.



The Faculty of Aeronautics thanks to these partners for support and cooperation in 2019



SLOVAK TRAINING ACADEMY

Slovak Training Academy



Letové prevádzkové služby SR



European Air Services



Raytheon Company



Česká letecká servisní a.s.



Heli Company, s.r.o.



ALES



Ministerstvo obrany SR



Ministerstvo dopravy a výstavby SR



Ministerstvo školstva, vedy,
výskumu a športu SR



Ministerstvo vnútra
Českej republiky



Západočeská univerzita
v Plzni



Dopravný úrad SR



Slovenská federácia ultraľahkého
lietania



Air Transport Europe, s.r.o.
Poprad



Združenie bezpečnostného
a obranného priemyslu SR



Letisko Sliač, a.s.



Letisko Poprad – Tatry, a.s.



Akadémia ozbrojených síl
generála M.R. Štefánika,
Liptovský Mikuláš



Vysoká škola mezinárod-
ních a veřejných vztahů
Praha, o.p.s.



Collegium Humanum



SYTELI, s.r.o.



TOMARK, s.r.o.



Veliteľstvo vzdušných síl OS SR
Zvolen



SOSA Slovak Organisation
for Space Activities



Slovenská letecká agentúra



Techniserv, s.r.o. Bratislava



LYNX Information Systems
& Security Solutions



JETAGE Bratislava



Letecké opravovne, a.s.
Trenčín



Kharkiv Morozov Machine
Building Design Bureau

Kharkiv machine-
building plant



Kharkiv Aviation Institute



AERO Vodochody
AEROSPACE a.s.



SPACEMANIC

Spacemanic, s.r.o.



INCOFF Aerospace s.r.o.



Pinnacle Solutions Inc



International Defense & Aerospace Group LLC

International Defense
& Aerospace Group, LLC



AEROTEAM, spol. s r.o.



Edis vvd



Decent



The Team of the Faculty of Aeronautics in 2019

Title: Annual Report of the Faculty of Aeronautics TUKE in Kosice for 2019.

Authors: Stanislav Szabo, Marek Košuda, Peter Korba, Peter Čokina, Monika Blišťanová,
Viera Jachymec Folková

Cover design: Ján Séra

Graphic editor: Marek Košuda, Ján Séra

Photos: Ján Bodnár st., Stanislav Szabo, Jozef Novotňák, Martin Filko, Marek Košuda, Peter Čekan, Ján Séra

Publisher: Technical University in Kosice

First edition



TECHNICAL UNIVERSITY OF KOŠICE

Faculty of Aeronautics

Contact



Faculty of Aeronautics
Technical University of Kosice
Rampová 7
041 21 Košice
Slovakia



info.lf@tuke.sk



+421 55 602 6102



lf.tuke.sk



Letecká fakulta



Letecká
fakulta
TUKE



60 YEARS

OF AVIATION EDUCATION IN KOŠICE

1959
2019