

FACULTY OF MECHANICAL ENGINEERING TUL

IMPLEMENTATION PLAN FOR THE STRATEGIC PLAN FOR EDUCATIONAL AND CREATIVE ACTIVITIES FME TUL

FOR 2023

Discussed by the Scientific Council of the Faculty of Mechanical Engineering of TUL
on 30 November 2022.

Approved by the Academic Senate of the Faculty of Mechanical Engineering of TUL
on 14 December 2022.

INTRODDUCTION

The plan for the implementation of the Strategic Plan of the Faculty of Mechanical Engineering TUL for 2023 is based on the Strategic Plan of the educational and creative activities of the FME TUL for the period 2021–2025 with a view to 2030.

It presents a set of concrete actions for 2023 that will lead to the 2025–2030 target state.

The FME TUL 2023 Implementation Plan builds on the evaluated FME TUL Implementation Plan for 2021 and 2022, based on the TUL Strategic Plan Implementation Plan for 2023 and the TUL Strategic Management Support Programme for 2022–2025. Standard activities in the individual areas of activity will be implemented and continued the established and proven activities and measures evaluated in the annual reports on the activities of the Faculty of Mechanical Engineering TUL.

The activities defined in the FME TUL Implementation Plans for 2021 and 2022 will be followed up or continued in these areas.

The following selected measures and activities will be implemented in targeted subareas.

STRATEGIC AREAS OF THE IMPLEMENTATION PLAN OF THE SP FME TUL FOR THE YEAR 2023

- A / EDUCATION AND STUDY
- B / SCIENCE, RESEARCH, DEVELOPMENT, INNOVATION
- C / SOCIAL RESPONSIBILITY
- D / ACADEMIA AND FACULTY COMMUNITY
- E / MANAGEMENT OF ACTIVITIES
- F / INFRASTRUCTURE

A / EDUCATION AND STUDY

- Prepare and submit accreditations for habilitation and professorship procedures of the FME TUL according to the set schedule.
- Translate the amendment to the Higher Education Act into all related areas.
- Continue the preparation of the professional bachelor's degree programme in systems engineering and logistics, linking the fields of technology and materials education, computer science and economics in cooperation with the Faculty of Economics TUL. Launched in 2022.
- Continue the preparation of the new follow-up Master's degree programme in Energy Engineering.
- Evaluate the results and experience with the implementation of new study programmes. Discuss their structure, continuously innovate study programmes and course contents according to needs in relation to scientific research activities, modern knowledge, social challenges and feedback from the evaluation process.
- To develop methods and forms of teaching on the basis of didactic transformations of the content of teaching units, to support the teaching process with modern didactic means and technologies that correspond to the development of pedagogical sciences, technical possibilities of the faculty and the overall concept of teaching units.
- To support departments in the development of curriculum frameworks with an emphasis on curriculum frameworks for blended and distance learning and blended learning.
- Support departments in strengthening the competences of academic staff for educational activities.
- Continue the set system of teaching evaluation, evaluate and publish results, respond to evaluation results and set measures.
- Monitor and analyze the causes of dropout.
- Implement measures to increase student success and study permeability.
- Continue the implementation of student advisor-tutor positions, adjusting the content, activities and activities based on the findings of academic year 2021/2022 and academic year 2022/2023.
- Stabilize the number of students enrolled in the 1st year of Bachelor studies and strengthen activities to increase the number of students enrolled in bachelor and postgraduate programmes.
- Strengthen activities to increase the number of self-paying students. Complete the didactic and content transformation of the admission test. To support the success of the admission procedure by offering/developing support materials familiarising applicants with the type of model tasks in the admission examination, including a demonstrative procedure for their solution, corresponding to the profile of a graduate of the academic Bachelor's degree programme FME TUL.
- Develop existing and new forms of cooperation with secondary schools, including discussions and measures to increase students' chances of success in higher education, to cooperate in the implementation of year-long theses and internships.

- Support student activities, creative activities and entrepreneurship of students (Student scientific professional activity, FormulaStudent TUL, Ideathon, SBS Club, etc.). Support individual departments in organising summer schools, workshops and student competitions.
- Finalise and put into force the new guidelines for the award of scholarships to students FME TUL, following the new TUL Scholarship Regulations. To support exceptionally talented students by providing merit, creative, research or exceptional scholarships and to provide suitable conditions for students to study with individual and specific needs.
- To develop forms of cooperation with the application sphere in the field of education and evaluation of creative activities of students and study programmes. Organise joint workshops and seminars.
- Actively develop forms of promotion and presentation of the faculty in the field of education and study offerings. Promote the achievements of students and student projects, strengthening the image and awareness among study applicants, employers and the general public. Engage in programmes and projects to promote and popularise technical disciplines and R&D at FME TUL.
- Promote English study programmes at foreign universities on-line, possibly also in full-time form, to target an increase in the number of foreign students within the framework of Government Scholarships – from Bosnia and Herzegovina, Ukraine, Moldova.
- To pilot Blended Intensive Programmes, i.e. combined intensive programmes using innovative ways of teaching by combining physical and virtual activities. Build on the 2022 preparation, i.e. negotiating topics and selecting partners to apply for the BIP programme. Faculty are considering 2 BIPs.
- Expand the offer of prestigious partner universities abroad for Erasmus+ mobility (including short-term, combined, virtual and international mobilities, specifically KA 171 Israel, selected Asian countries).
- To continue our collaboration with Conestoga Polytechnic and the University of Waterloo, to build on our successful history of student internships, and to expand into other topics. To carry out a visit to the University of Waterloo and other universities in Canada with the aim of presenting the FME TUL and developing scientific research cooperation.

B / SCIENCE, RESEARCH, DEVELOPMENT, INNOVATION

- Implement activities to strengthen the standards of scientific research activities. Continue to implement the FME TUL R&D&I +2030 Strategy, evaluate research directions and research programmes.
- Continue the activities defined in the FME TUL Implementation Plans 2021 a 2022.
- To complete the evaluation of individual departments, started in June 2022, to define strengths and weaknesses, including proposals and measures for qualitative R&D growth of the departments.

- Respond to the outputs of the evaluation of the research programmes of FME TUL, set up measures to strengthen weak points.
- Maintain, optimally strengthen, research funding – optimally by increasing the share in the DKRVO, by acquiring or participating in new research projects.
- Maintain the number of impacted articles with the share of FME TUL authors and optimally increase the author's shares on articles.
- Continuously increase the proportion of impacted articles published in journals falling into Q1 and Q2 with the share of FME TUL authors.
- To support the production of applied research results with the potential for application in Module 1 of the M2017+ methodology.
- Set up a plan for academic research stays at foreign universities and institutions as part of career parameters. Establish a Faculty Mobility Fund of the FME TUL to support scientific research stays.
- Maintain the numbers of DSP students, increase the qualitative parameters of the study, including the parameters of the trainers.
- To expand the content of the new FME TUL website by offering modules in the section Science and research and examples of successful implementations in the section Cooperation offer.
- Present the results of scientific research cooperation and offers of cooperation at international trade fairs.
- To offer and motivate DSP students to participate in activities implemented within the TUL Doctoral School.
- Participate in the development of a trainer evaluation system.
- Evaluate the implementation of a DSP management application. Support the upgrade of the application if necessary.

C / SOCIAL RESPONSIBILITY

- To seek, discuss and develop new forms of cooperation in response to societal challenges and to respond to the expected needs of the industrial sector, linked to societal issues.
- Cooperate with regional agencies, associations and professional chambers.
- To develop and offer activities for all generations in the field of knowledge, science and technology, e.g. Scientists' Night 2023, the 5400 Seconds of Inspiration lecture series, etc.
- To organize a "space" in a popular format for mutual meetings with personalities, especially from the field of engineering, who have achieved or are achieving significant and inspiring results in their creative activities and are or have been associated with the FME TUL "Stories *not only* of our graduates".
- To develop forms of promotion and presentation of the faculty towards the public in the field of the results of creative activities.
- Continue and develop the concept of presentation and promotion of the FME TUL through available networks.

D / ACADEMIA AND FACULTY COMMUNITY

- 2023 is the year of celebration of 70 years of the FME TUL – to implement a programme of events for partners, alumni, students and the public.
- To prepare a publication, almanac and presentation prints for the anniversary of the founding of the faculty.
- To organize and host a meeting of deans of engineering faculties of the Czech Republic and Slovakia „SESIA 2023“.
- To organize a festive meeting of the Scientific Council of the FME TUL.
- To hold a Diamond Graduation Ceremony for the 1963 graduates.
- To develop cooperation with the newly established Industrial Council of FME TUL as an advisory body to the Dean.
- Reach out to graduates of the faculty for feedback in terms of evaluation of the educational process and application in the labour market.
- To finalize and put into force the new Statute of the FME TUL, to eliminate legislative discrepancies with the current status.

E / MANAGEMENT OF ACTIVITIES

- Continue the activities introduced in 2022, i.e.:
Implement a plan of educational and training activities for administrative staff and faculty management.
Approach foreign universities with demand for positions for FME TUL students.
Complement the network of FME TUL contact persons/mentors for selected foreign institution.
Support the computerization of the study agenda within TUL, i.e. link STAG systems and file services, etc.
- Conduct a status and needs analysis in relation to the European Commission's HRS4R Strategy, carried over from 2022.
- Continue activities linking the data management modules being implemented (i.e. Publications, GAP, Cassandra, Mobility, STAG, SGS, Roliz Academic and Staff Assessment), promoting linkages with VEMA and the Records Service. Work towards the use of data for analysis of TUL and faculty activity evaluation.
- Create an application for departmental performance evaluation and faculty budget allocation.
- Develop a new faculty web portal, set up the Technology, Knowledge and Services Transfer (TKTS) module, including an English version.
- Promote the unification of study processes within TUL, i.e. compliance with legal procedures and study regulations.
- Support the introduction of regular meetings of the study departments of all TUL faculties.

F / INFRASTRUCTURE

- Complete the renovation of departments, classrooms and labs in Building F and move departments "from temporary areas" back to Building F.
- To put into proper operation the new laboratory of the Department of Power Equipment.
- Building on the university's cybersecurity measures, take TUL measures to the faculty and departmental level. Establish a faculty data repository.
- To set up the concept of faculty and departmental data backup with respect to security aspects. Increase the cybersecurity literacy of employees.
- Update the system and security of the faculty's website in accordance with the prepared directive for TUL security standards.
- Continuously renew the infrastructure of laboratories for the development of research programmes.

FINANCIAL RESOURCES

- Contribution from the state budget of the Czech Republic
- Subsidies from the state budget of the Czech Republic
- Investment Programme for the Development of Infrastructure of Higher Education Institutions of the Ministry of Education, Youth and Sports of the Czech Republic
- Development and subsidy programmes of the Ministry of Education, Youth and Sports of the Czech Republic – Programme to support the strategic management of the Technical University of Liberec for 2023, National Renewal Plan for Higher Education, Centralised Development Programme for Public Universities
- Grant programmes of regions and Prague
- Programmes of the CAS, GA CR, TA CR and ministries of the Czech Republic
- OP JAK, OP TAK and other EU operational programmes
- Horizon Europe programme
- International cooperation programmes in research and development
- Programmes to support student and academic mobility
- Own resources FME TUL
- Contract research
- Additional activities
- Donations
- Etc.