



CENTER FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT

STUDY FIELD

TRANSPORT ENGINEERING

at KAUNAS UNIVERSITY OF APPLIED ENGINEERING SCIENCES

Expert panel:

1. Prof. Dr.-Ing. Haldor E. Jochim, *(panel chairperson), academic,*
2. Prof., Dr.Sc.Eng. Irina Jackiva (Yatskiv), *academic,*
3. Prof. Dr. Artūras Keršys, *academic,*
4. Mr Edmund Lisovski, *representative of social partners',*
5. Mr Gytautas Urbonas, *students' representative.*

Evaluation coordinator -

Ms Ona Charževskytė-

Report language – English

© Centre for Quality Assessment in Higher Education

Study Field Data*

Title of the study programme	Automobile Technical Maintenance
State code	6531EX003
Type of studies	Higher education college
Cycle of studies	First
Mode of study and duration (in years)	Full-time (3 years) Part-time (4 years)
Credit volume	180
Qualification degree and (or) professional qualification	Professional Bachelor's Degree in Engineering
Language of instruction	Lithuanian
Minimum education required	Secondary education
Registration date of the study programme	01-09-2002

** if there are **joint / two-fields / interdisciplinary** study programmes in the study field, please designate it in the foot-note*

CONTENTS

I. INTRODUCTION	4
1.1. BACKGROUND OF THE EVALUATION PROCESS	4
1.2. THE REVIEW TEAM	4
1.3. GENERAL INFORMATION	5
1.4. BACKGROUND OF STUDY FIELD/STUDY FIELD PLACE AND SIGNIFICANCE IN HEI	5
II. GENERAL ASSESSMENT	7
III. STUDY FIELD ANALYSIS	8
3.1. STUDY AIMS, OUTCOMES AND CONTENT	8
3.2. LINKS BETWEEN SCIENCE (ART) AND STUDY ACTIVITIES	16
3.3. STUDENT ADMISSION AND SUPPORT	19
3.4. STUDYING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT	25
3.5. TEACHING STAFF	32
3.6. LEARNING FACILITIES AND RESOURCES	36
3.7. STUDY QUALITY MANAGEMENT AND PUBLICITY	40
IV. RECOMMENDATIONS	46
V. SUMMARY	48

I. INTRODUCTION

1.1. BACKGROUND OF THE EVALUATION PROCESS

The evaluation of study fields is based on the Methodology of External Evaluation of Study Fields approved by the Director of Centre for Quality Assessment in Higher Education (hereafter – SKVC) 31 December 2019 Order [No.V-149](#).

The evaluation is intended to help higher education institutions to constantly improve their study process and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: 1) *self-evaluation and self-evaluation report prepared by Higher Education Institution (hereafter – HEI); 2) visit of the review team at the higher education institution; 3) production of the evaluation report by the review team and its publication; 4) follow-up activities.*

On the basis of external evaluation report of the study field SKVC takes a decision to accredit study field either for 7 years or for 3 years. If the field evaluation is negative such study field is not accredited.

The study field and cycle is **accredited for 7 years** if all evaluation areas are evaluated as “exceptional” (5 points), “very good” (4 points) or “good” (3 points).

The study field and cycle is **accredited for 3 years** if one of the evaluation areas was evaluated as “satisfactory” (2 points).

The study field and cycle **is not accredited** if at least one of evaluation areas was evaluated as “unsatisfactory” (1 point).

1.2. THE REVIEW TEAM

The review team was completed according to the Experts Selection Procedure (hereinafter referred to as the Procedure) approved by the Director of Centre for Quality Assessment in Higher Education on 31 December 2019 [Order No. V-149](#). The Review Visit to HEI was conducted by the team on 15/12/2020.

Prof. Dr.-Ing. Haldor E. Jochim, (*panel chairperson*),
Prof., Dr.Sc.Eng. Irina Jackiva (Yatskiv), (*academic*),
Prof. Dr. Artūras Keršys, (*academic*),
Mr Edmund Lisovski, (*representative of social partners'*),
Mr Gytautas Urbonas, (*students' representative*).

1.3. GENERAL INFORMATION

The documentation submitted by the HEI follows the outline recommended by the SKVC. Along with the self-evaluation report and annexes, the following additional documents have been provided by the HEI before, during and/or after the site-visit:

No.	Name of the document
1.	Employment indicators 2016-2018
2.	Descriptions of the study subjects Automobile Repair Technologies and Foreign Language 2 (English Language)

1.4. BACKGROUND OF STUDY FIELD/STUDY FIELD PLACE AND SIGNIFICANCE IN HEI

General information about the significance of the study field:

Automobile Transport Engineering is an important engineering field, for various reasons.

1. Motor-cars (automobiles) have been a vital means of individual transport for many decades. Private car ownership is high with a tendency to increase further with rising income. Thus the engineering of motor-cars has become a major branch of mechanical engineering.

2. On a national and regional level, the technical service and repair of motor-cars has been gaining importance due to the rising number of cars. Well-trained specialists in this field are in great demand.

3. Taking into account the challenges by climate change it is obvious that the technology of motor cars must change in due course. Apart from becoming more efficient, the technology will have to move towards alternative means of energy fast. That change requires a huge amount of new thinking, resources and equipment in teaching and research.

4. Lithuania is the main transit country in the Baltics. The share of transport-related business is higher than the international average in this country. That is especially the case in goods traffic, thus leading to special attention to this part of automotive engineering when analysing study programmes and research.

Information about the role of the HEI:

Kaunas University of Applied Engineering Sciences (hereinafter – the KTK) is a college, a higher education institution that performs first cycle studies. The origins of the KTK go back to 1920.

It offers the study programme “Automobile Technical Maintenance”, designed to train specialists on innovative automobile technologies. The study programme has existed for 73 years and has

produced a high number of graduates compared with similar programmes in Lithuania and still has the biggest number of students at the KTK. The graduates of the study programme are in great demand in the field of transport engineering not only in the region but also nationally and even internationally. There is systematic and consistent cooperation with well-known international car manufacturers. Another feature of the programme are special study fields in racing cars and lorry technology.

II. GENERAL ASSESSMENT

The *Transport Engineering* study field and **first cycle** at Kaunas University of Applied Engineering Sciences is given **positive** evaluation.

Study field and cycle assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Study aims, outcomes and content	4
2.	Links between science (art) and study activities	3
3.	Student admission and support	4
4.	Studying, student performance and graduate employment	4
5.	Teaching staff	4
6.	Learning facilities and resources	3
7.	Study quality management and publicity	4
	Total:	26

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is evaluated very well in the national and international context, without any deficiencies;

5 (exceptional) - the field is exceptionally good in the national and international context/environment.

III. STUDY FIELD ANALYSIS

3.1. STUDY AIMS, OUTCOMES AND CONTENT

Study aims, outcomes and content shall be assessed in accordance with the following indicators:

3.1.1. Evaluation of the conformity of the aims and outcomes of the field and cycle study programmes to the needs of the society and/or the labour market (not applicable to HEIs operating in exile conditions)

(1) Factual situation

Information from SER (p. 6-7, Annex 1)

Annex 1 of the self-evaluation report shows a table with the learning outcomes to be achieved with regard to business practice and relates them to the subjects (modules) where they are gained. They cover Knowledge and Understanding, Engineering Analysis, Engineering Design, Research, Engineering Activity and Personal/Transferable Skills.

The SER also provides a list of professional activities (p. 7), which refer to both the manufacturing and the maintenance sectors.

There are three specializations: Car Maintenance, Cargo Vehicle Maintenance and Sports Car Preparation & Maintenance.

Information from interviews:

The college has a unique specialisation about sports car technology in its programme.

Electric and hydrogen technology are small subjects at the moment, but are going to be extended.

The managers say that new specialisations may be added if the labour market indicates that they may be successful.

The share of students in the specialisations is 50% in motor cars, 25% in lorry technology and 25% in sports cars.

The college also has a long tradition, with good contacts to employers. It teaches Employment Law in the 4th semester.

The multidisciplinary approach in the programme is realised through business studies including business case studies and business contests in Business Economics and Management.

A foreign teacher was invited for Environmental Engineering.

(2) Expert judgement/indicator analysis

The study programme Automobile Technical Maintenance under the Transport Engineering study field conforms to the needs of the society and labour market. The professional activity of technical maintenance of automobiles is an important part of a successfully functioning land transport system. There is a continuous demand for the specialists in this field of activity, and with the continuous development of the vehicle technology and increasingly stringent technical requirements, increasingly higher qualification is required.

Based on the materials provided in the self-assessment report and the arguments expressed at the meetings with the experts, the organizers of the programme substantiate the need for the programme largely referring to the scope of the Kaunas region. When assessing the needs of the society and labour market and its trends and making the respective decisions on relevant changes in the programme curriculum and learning outcomes, it is reasonable to use the global strategic documents and plans governing the policy and development of transport competitiveness and sustainability as guidance.

When assessing the learning outcomes of the field programme, it should be noted that they do not reveal the uniqueness of the programme specializations. This aspect shall be corrected – the content of the learning outcomes of the programme can and must reflect the specificity of the specializations and the knowledge and skills gained under the subjects studied within the specializations.

The existing coherence between the programme content and qualification awarded enables the specialists prepared under the Transport Engineering study field to work in the transport sector. The graduates awarded with the vocational Bachelor of Engineering Sciences degree are employed at the automobile maintenance or service companies or become self-employed.

Graduates of the study programme have the possibility to seek higher university education by studying at universities – the teachers provide consultations and support the students in appropriate preparation for the Master degree studies, at the students' request.

The fact that the college offers only one study programme in Transport Engineering reflects the dynamics/stability of the number of students entering the field programmes, consistent distribution of the students across the three specializations under the study programme (Car Maintenance, Cargo Vehicle Maintenance, Sports Car Preparation and Maintenance) and the employment rates after the graduation, the demand for and profile of the automobile transport specialists, as well as the facilities and human resources available to the HEI.

With its mixture of broadness and specialisations, the programme appears well-balanced. The high number of industrial contacts supports it in covering the needs of the labour market sustainably.

3.1.2. Evaluation of the conformity of the field and cycle study programme aims and outcomes with the mission, objectives of activities and strategy of the HEI.

(1) Factual situation

Information from SER (p. 6-7)

The SER mentions the 'Kaunas region development plan' with its 'Intelligent Economy' element, which aims to develop the Kaunas region as 'a high value-added industrial area based on science and business partnership'. It is stated that the region is attractive for local and international business, not least due to its well-developed system of international transport and logistics and its favourable geographical position. It is also argued that the number of cars and the volumes of passengers and cargo transport are constantly increasing. Since Lithuania is a transit country the transport system is identified as especially important, with a need for professional automobile technical maintenance specialists; the modernization of vehicles and stricter technical requirements require even more highly qualified specialists.

(2) Expert judgement/indicator analysis

The aim of the Transport Engineering study field and programme, i.e. to prepare broadly erudite analytically thinking automobile technical maintenance specialists who are able to constructively combine engineering knowledge and practical skills and are able to maintain professional competence in lifelong learning, is in line with the mission, objectives of activities and strategy of the HEI.

The aim and learning outcomes of the field programme conform to the mission, objectives of activities and strategy of the HEI. The graduates contribute to implementation of the smart society goals, thereby implementing the mission of the State University of Applied Engineering Sciences, i.e. "Engineering competences for the welfare of the smart society". The learning outcomes are aligned to the requirements on monitoring the labour market changes and forming the required specialist competences, thereby ensuring implementation of the key strategic goal of the HEI, namely, "be the leader of the technical sciences in the region of Baltic countries, actively sharing the knowledge and contributing to the development of the advanced society and industry".

The study programme conforms to the mission, objectives of activities and strategy of the institution.

3.1.3. Evaluation of the compliance of the field and cycle study programme with legal requirements

(1) Factual situation

Information from SER (p. 8-9)

The compliance of the scope of the subjects with the requirements of higher education college study programmes is presented in Table 1.1 of the SER. According to the SER, the study

programme is developed and updated on the basis of national legislation, and the relevant regulations are cited.

The curriculum design of the study programme in the Transport Engineering field – Automobile Technical Maintenance (full-time (3 years) and part-time (4 years) study modes) is in line with the General Requirements on Execution of the Studies: the total volume of the programmes is 180 credits (minimum 180 required), 135 credits (minimum 120 credits required) have been allocated to achieving the learning outcomes in the study field (including practice placement and final thesis preparation), 30 credits in total (minimum 30 credits required) have been allocated to the practice placements. The study programmes are completed by assessment of the graduates' competencies during the final thesis (project) defence allocated with 9 credits (minimum 9 credits required). The free electives available under the study programmes for the students comprise 9 credits. The volume of the general college study subjects is 15 credits.

The annual volumes of the studies under the full-time and part-time study modes providing the equivalent degree are, respectively, 60 credits (minimum 45 credits required) and 45 credits (maximum 45 permitted) per year. The learning outcomes, study of volume in credits and contact work volume provided in the programmes are the same for the both study modes.

(2) Expert judgement/indicator analysis

The curriculum design of the study programme in the Transport Engineering field – Automobile Technical Maintenance is in line with the General Requirements on Execution of the Studies. The volume of students' contact work (including remote work) is 46 % (at least 20 % required), students' independent work volume – 40 % (at least 30 % required). The condition related to practice placement and other practical preparation as described in the General Regulations on Execution of the Studies is fulfilled by the programme – one third of the programme volume has been allocated to this.

The aim and expected learning outcomes under assessment and provided under the study programme in the Transport Engineering field have been formed in line with the Description of the Group of Engineering Study Fields and requirements applicable to the first-cycle college studies. The level of complexity of the learning outcomes conforms to the level 6 qualification requirements under the European and Lithuanian Qualifications Framework for higher education. The studies are focused on preparation for professional occupation in the transport field, enabling acquisition of the R&D-based qualification.

By assuring the close link between the theoretical materials delivered under the subjects and practical classes as well as applying flexible (including remote) teaching and learning methods and techniques, the subjects studied play an important role in achievement of the programme aims and successful implementation of the learning outcomes. The content and description of the study subjects are in line with the requirements applicable to the college and first-cycle studies, and the programme volume is sufficient in view of the expected learning outcomes.

3.1.4. Evaluation of compatibility of aims, learning outcomes, teaching/learning and assessment methods of the field and cycle study programmes

(1) Factual situation

Information from SER (p. 9-10)

The appropriate link between the study programme outcomes and subject learning outcomes has been reflected in the self-assessment report (Annex 1 and 4 thereto).

Theoretical knowledge is acquired in lectures, practical and laboratory work, by consulting teachers and studying individually. Among the learning methods used are demonstration, problem-based teaching, study trips, case studies and distance learning. Classes may be organised in the form of exercises, practical tasks and laboratory works, seminars, discussions or work visits.

During the theoretical classes, students are supposed to acquire the necessary knowledge, which is consolidated through practical classes and individual work. Individual work is organised and counselled by a teacher, supporting the students with expanding their basic theoretical knowledge and learning to apply it. It is also used for preparation of semester assignments, laboratory work and preparation of exams, including the final thesis.

Much attention is also paid to practical skills: Initial practical abilities are developed in the laboratories even in the theoretical part of the course. Skills are improved during training in laboratories. Practical skills are broadened and deepened social partner companies during several internships.

Information from interviews:

The conformity of the teaching, learning and assessment methods with the learning outcomes was discussed in detail during the discussions with experts, upon submission of additional materials for assessment, namely, the descriptions of study subjects Automobile Repair Technologies and Foreign Language 2 (English Language).

In response to the question of whether the students' knowledge and skill assessment was performed on the basis of pre-established criteria familiar to the students (i.e. the pre-established set of criteria) asked during the meetings with the experts, the teachers, students, and authors of the self-assessment report named the assessment system and/or study outcome achievement/assessment criteria applied in the models and also provided in the descriptions of the above study subjects.

(2) Expert judgement/indicator analysis

The college appears to offer an adequate balance of theoretical and practical expertise to be taught to the students.

The additional information submitted and discussions with the teachers showed that a systemic approach and process provides relevant links between the learning outcomes, teaching/learning, and assessment methods (diversity and appropriateness) and prevails in development, attestation and updating of the study subjects and programmes.

To assure unbiased and fair assessment of the students, it would be reasonable to formulate and present the assessment criteria in a way that they reflect the evidence used by the teacher in assessment of the knowledge and skills acquired by the student (by identifying their weight, i.e. effect on the assessment mark) in the assessment forms provided for the study modules. For example, where “laboratory work report, defence” is indicated as the assessment form/method under the module, the assessment criteria could be: preparation for implementation of the work, analysis of the results generated and comparison to the theoretical material, validity and presentation of the results, formulation and validity of the conclusions.

3.1.5. Evaluation of the totality of the field and cycle study programme subjects/modules, which ensures consistent development of competences of students.

(1) Factual situation

Information from SER (p. 11)

The programme is characterised by a mixture of general expertise and specialisation in three areas: After completing 50% of the study plan, students choose one of the specialisations Car Maintenance, Cargo Vehicle Maintenance and Sports Car Preparation and Maintenance in the last two semesters. Each specialisation has 15 credits.

Generally, subjects are based on the learning outcomes achieved in the previous study subjects, according to the self-evaluation report.

The logical relations and sequencing of the part-time study subjects are similar to the full-time studies, but spread throughout the four-year period (8 semesters).

(2) Expert judgement/indicator analysis

The subjects and modules are positioned in the programmes consistently, the subjects and content/topics thereof do not overlap. The analysis of the logical relations and sequencing of the study subjects showed coherent positioning of the study subjects by semesters. The subjects which provide fundamental knowledge, understanding and abilities that form the foundation for further studies and research are delivered in the first semesters. The modules delivered during subsequent semesters build on the knowledge and abilities gained during the previous modules. This enables the students to successfully reach the learning outcomes.

3.1.6. Evaluation of opportunities for students to personalise the structure of field study programmes according to their personal learning objectives and intended learning outcomes.

(1) Factual situation

Information from SER (p. 11)

Students of the study programme in the Transport Engineering field have the opportunity to personalise the studies according to personal learning aims/outcomes by selecting free elective subjects and specializations: Car Maintenance, Cargo Vehicle Maintenance and Sports Car Preparation and Maintenance. Depending on the chosen specialization, students study different subjects (15 credits). Starting from the second year, students individualize their studies by choosing subjects from a prepared block of optional subjects (not less than 9 credits).

Additionally, starting from the second year, students choose subjects from a prepared block of optional subjects of at least 9 credits in total. Students can choose subjects offered by all study programmes of the KTK. Engineering and social science subjects are chosen most often, whereas humanities are seldom picked.

The college also provides opportunities to study according to an individual programme. According to the student admission rules, individual studies may be chosen by students with higher education acquired in another study programme at the KTK or other educational institutions. An individual study programme and plan for the entire study period is drawn up for the students who have opted for individual studies.

(2) Expert judgement/indicator analysis

The college offers a balanced curriculum, with core subjects and electives. In an international context, 15 credits are not very high in this respect, but compared with similar programmes within Lithuania and taking into account the chances and limitations of a college, it appears adequate.

The three specialisations enable students' freedom of choice and their professional self-expression.

The responsible and non-formal approach towards the students' needs to personalise their studies upon the self-assessment of their own abilities to pursue the studies in the Engineering Sciences and the intentions to continue into the Master degree studies should also be noted. Kaunas University of Applied Engineering Sciences provides the possibilities to study an individual programme. The individual study programme and plan for the full period are developed for the persons holding a higher education degree gained under a different study programme at the University of Applied Sciences or other institutions of higher education.

3.1.7. Evaluation of compliance of final theses with the field and cycle requirements.

(1) Factual situation

Information from SER (p. 12)

As the study programme aims to combine applied research and experimental development, that is reflected in the final thesis papers too. Some final theses are commissioned by social partners for direct practical application (Table 1.2 of the SER).

The topics and content of the final theses in the Transport Engineering field are associated with the design and modernisation of the automobile service companies, automobile repair, maintenance technologies, equipment design, modification of the internal combustion engines for operation using alternative fuels. In preparation of the final theses, the students apply the methodology to design of the technological processes, employ analytical and modelling methods, conduct applied research.

Generally, the graduates are to demonstrate the acquired engineering knowledge and competences by applying analytical and design methods and analysing problems and tasks of the study field. The assessment is based on the achievement of the learning outcomes: general knowledge and skills, engineering analysis skills, knowledge and skills to perform design work, applied research skills, practical knowledge and skills for solving engineering tasks, personal and social skills.

Information from interviews:

Additional consultations for the preparation of final theses have been introduced. Three final thesis papers have been conducted with foreign teachers.

The final theses are also supported by international social partners: since 2018 teachers of foreign higher education institutions have been reviewing two final theses each year.

Topics are suggested by companies, or students search topics according to their interests and pick the teacher accordingly. Each teacher can be picked by 6 students simultaneously; the teacher list is open for all to see.

(2) Expert judgement/indicator analysis

The HEI aims at ensuring the unity of research and studies by developing the R&D by performing commissioned R&D activities for business, industry and regions. The strategy of the programme to include social partners into the process of final project preparation is considered a positive aspect.

The general requirements of final theses, being a final check of the abilities of the students and their theoretical and practical expertise, appear to be fulfilled.

The method of letting the students pick a topic and spreading the supervision evenly among the teachers is a good way to ensure uniform quality.

However, all thesis papers are focused on special parts of the service workshop design, although according to the subjects works could cover a wider range of topics. Perhaps the freedom to choose topics should be restricted with the aim to achieve more variety.

Recommendations for this evaluation area:

- Attention should be paid to possibly disproportionate links between study subjects and program outcomes: the final project achieves three quarters of the programme outcomes, while one of the programme outcomes is achieved by studying nineteen subjects. The content of the learning outcomes of the programme can and must reflect the specificity of the specializations and the knowledge and skills gained under the subjects studied within the specializations.
- As mentioned during the meetings, there are cases of individual studies and tasks in the part-time mode of studies. In order to ensure the accessibility of learning outcomes, it would be relevant to regulate this practice. Alternatives of the applied studies and relevant assessment methods must be defined in the study module programmes.
- The topics of the final projects do not show much diversity. Restricting the free choice of thesis subjects by students might be necessary to achieve more breadth. Cooperation with social partners might also be useful in providing the opportunity to develop the students' competence of creativity better.
- To assure unbiased and fair assessment of the students, it is recommended to formulate and present the assessment criteria reflecting the evidence used by the teacher in assessment of the knowledge and skills acquired by the student (by identifying their weight, i.e. effect on the assessment mark) in the assessment forms provided for the study modules.

3.2. LINKS BETWEEN SCIENCE (ART) AND STUDY ACTIVITIES

Links between science (art) and study activities shall be assessed in accordance with the following indicators:

3.2.1. Evaluation of the sufficiency of the science (applied science, art) activities implemented by the HEI for the field of research (art) related to the field of study.

(1) Factual situation

Information from SER (p. 14-17)

Over the last three years, the college's total income from research activities has increased from 45,000 EUR in 2017 to 203,000 EUR in 2019. The SER does not state, however, to what extent the study programme on evaluation contributed to this increase.

The SER instead uses the growing shares of teachers with a PhD degree and with the status of Associate Professor as evidence for improvements in this field (p. 14).

The SER emphasises that all applied research and experimental development activities performed by teachers are directly related to the study programme, and their results are used in

the study process. On p. 14-15, Table 2.1 is provided showing the research projects and their integration into the study programme.

The college organises a traditional scientific conference ("Engineering and Educational Technologies"); scientific articles based on the conference proceedings are published in a scientific periodical journal ("Engineering and Educational Technologies", p. 16).

Some applied science activities are commissioned by social partners (p. 17).

Information from interviews:

The faculty conducts applied research with a company and internal research work with students.

As a support for teachers who want to improve their scientific work the college allows teachers to keep money from their own research privately. Fees for scientific conferences are paid; the college publishes scientific articles in its own journal, which is also an opportunity for students.

(2) Expert judgement/indicator analysis

It seems that the college paid special attention to collaboration with social partners in the previous period and achieved results in realised projects by partner demands.

However, it is not enough attention to the Conferences and Journals in the area of Transport Engineering and with significant international recognition.

3.2.2. Evaluation of the link between the content of studies and the latest developments in science, art and technology.

(1) Factual situation

Information from SER (p. 17-18)

In order to keep the content of the study programme linked with the latest scientific and technological developments, teachers are constantly developing their qualification by participating in exhibitions, seminars, conferences, training, lectures or participating in teaching/training activities under the Erasmus+ mobility programme.

The content of the study programme is also improved by involving social stakeholders in the activities of the study process: representatives of business enterprises are invited to read integrated lectures, during which students are introduced to the latest technologies in the market (listed in Table 2.2. on p. 17). The college is planning to increase the number of integrated lectures from six to ten per year.

(2) Expert judgement/indicator analysis

There is good cooperation with business enterprises and their involvement in the study process and impacts on the subjects of fulfilled research projects. But most of them refer to the national

level only. More international collaboration is needed for inviting distinguished researchers and lecturers from the study field.

3.2.3. Evaluation of conditions for students to get involved in scientific (applied science, art) activities consistent with their study cycle.

(1) Factual situation

Information from SER (p. 18-19)

According to the college, students are constantly encouraged to participate in applied-science research. In 2017, 20 students, supervised by teachers, participated in a project initiated by the Kaunas municipality, creating a sustainable mobility plan in Kaunas. Additional scientific research was carried out on several mobility problems in Kaunas.

From 2017 a collection of the best student research papers has been published.

Every year a competition called "Automotive Engineer 'XX KTK Cup" is organised, in which about 40 first and second year full-time students of the study programme participate.

In 2014 students established "KTK Racing Division", a car club where enthusiastic members regularly meet after lectures to work in two laboratories in the Bosch centre and the 'Tobis' car service station. More than a hundred students of the study programme have become members of the car club and have joined the team, which is engaged in technical preparation of cars for motorsports and participate in various motorsport events.

Information from interviews:

The University publishes scientific articles in its own journal, which is also an opportunity for students, according to the statement of the college.

The expert panel inquired about examples of applied research with social partners / business partners and how the applied research was integrated into the study process.

The college explained that its research is generally conducted for inclusion into the study process. Companies can outsource their projects to the College and their students to save salaries of researchers; that is proving more and more popular. Simultaneously, the research can be integrated into the study process and improve it.

The following examples were mentioned: 1) sustainable mobility in Kaunas (cooperation with the Municipality), 2) work analysis in a private company, 3) one joint publication with a student. There has also been one example of a Final Thesis on demand. Since the bigger focus of the partners lies on hands-on topics, there is not more than one example.

Since the SER also mentions that 'the applied research activities of the college take place in cooperation with academic, social and business partners' the panel also inquired about an example in this area and was told that there had been the development of the service centre for sports vehicles as a joint applied-research project.

(2) *Expert judgement/indicator analysis*

There are good conditions for student engagement in research, but so far not many students have been involved in research activities. For this reason, it is necessary to promote research and attract more students in international cooperation and projects.

Recommendations for this evaluation area:

- *It is recommended to use more national and international programmes for attracting more invited/foreign lecturers and researchers and developing international cooperation.*
- *It is recommended to select conferences with priority on international recognition in the area of Transport Engineering.*

3.3. STUDENT ADMISSION AND SUPPORT

Student admission and support shall be evaluated according to the following indicators:

3.3.1. Evaluation of the suitability and publicity of student selection and admission criteria and process.

(1) *Factual situation*

Information from SER (p. 21-23)

Student admission is conducted on the basis of Law and Orders of the Republic of Lithuania. In conformity with these acts, the persons with at least secondary education may be admitted to the programme, considering the competitive learning results. People who intend to study in state-funded or fee-paying study place participate in a general admission process. The student admission procedure to the college is updated every year, and relevant information about the admission procedure and requirements is published on the website (www.ktk.lt).

The state-funded study places are provided to the applicants according to their ranking order, which takes into account maturity examinations, performance results and additional criteria. The calculation of the competitive score, awarding of additional scores, admission procedures are provided in the Student admission rules approved by the college's Academic Council; the rules are updated every year in accordance with the applicable regulations.

Information about admission requirements is made public in study fairs, career days, visits to various sorts of schools, in social networks and in the press.

In Table 3.1 and 3.2 the SER provides detailed information about the number of applicants and admitted students of the programme. In the report it is noticed that the number of students admitted has been decreasing, though their competitive score is increasing. These changes have come about by the change of admission requirements in state-funded study places of Lithuanian higher education institutions and thus do not reflect an internal strategy of the college.

According to the indicators of student admission to the KTK, the 'Automobile Technical Maintenance' programme is the programme with the largest competition counted by first request, and one of the largest in terms of the number of admitted students.

The increase of the competitive score, though making it more difficult to fill the ranks of students, has the advantage of increasing the motivation and knowledge level of entrants.

Information from interviews:

The number of students admitted to study is constantly decreasing, since the Ministry of Education raised admission requirements for intending at Lithuanian higher education institutions.

The College points out that, on one hand this change raised the quality of students but on the other hand some students who might be able enough, did not meet the requirements, especially students from small regions.

Since that is regarded as a national problem, the college is going to try to improve its situation with more international focus and discuss that with the managers of the international programme.

Asked about the Marketing strategy, the faculty explains that there is a University Marketing Strategy aimed at the national market.

The race car specialisation is also regarded as attractive, and there is a motor sport club to support the marketing of the specialisation.

(2) Expert judgement/indicator analysis

There is a contradiction in the fact that there is a national marketing strategy only though the college prefers to focus on the international market more. The international development seems to be fledgling at the moment.

The specialisation on sports car technology may offer a good path for keeping up student numbers, especially if it is linked with new car technologies such as electric, hybrid and hydrogen.

3.3.2. Evaluation of the procedure of recognition of foreign qualifications, partial studies and prior non-formal and informal learning and its application.

(1) Factual situation

Information from SER (p. 23)

The evaluation and recognition of competences acquired through non-formal and informal learning is carried out in accordance with a special Procedure approved by the Academic Council of the college. The KTK evaluates and recognises the competences acquired by individuals according to this procedure. No more than 75 % of the subjects of the study programme may be recognised, the final thesis and final examination will not be recognised.

According to the SER, competences previously acquired through formal education are granted according to a formal procedure, too. Competences provided by vocational training programmes are recognised if the competences substantially correspond to the learning outcomes of a similar subject and the coverage of the subject to be recognised is not less than 50 % of the respective study subject of the study programme.

In the previous three years, 69 applications for recognition of formally acquired competences were granted.

(2) Expert judgement/indicator analysis

The procedures for the recognition of external competences are adequate.

3.3.3. Evaluation of conditions for ensuring academic mobility of students.

(1) Factual situation

Information from SER (p. 23-24)

Information on mobility opportunities is published on the college website, on information boards, during career events, by meetings with students in individual study programmes and meetings with the International Relations Coordinator. Information events are organized every semester, with students being introduced to the requirements of the Erasmus + program and meeting students who have already had a mobility experience. Meetings with representatives of companies offering internships abroad are organised, too. A staff member working in the study programme takes care of outgoing and incoming students, gives advice on opportunities to study or do internships, looks for adequate partners, and coordinates the study content during the mobility with the head of the study programme. Welcoming weeks are organised for incoming students.

There have been no foreign students coming for full-time studies in the last three years. The college tries to explain this phenomenon by insufficient publicity of the study programme, complicated procedure of admission to Lithuanian higher education institutions for non-EU citizens, and the Lithuanian higher education college sector being not well-known in the European context. It is presumed that foreign students are more interested in university studies. However, a few foreign students have come for part-time studies or internships (Table 3.4. on p. 24).

The number of outgoing students for part-time studies or internships is increasing. Table 3.5 on p. 24 shows that the number of outgoing students for part-time studies or internships has increased from 12 to 19 between 2017 and 2020.

The college regards the international mobility as insufficient and lists the following main reasons for this: The network of foreign higher education partners for studies in the field of Transport Engineering is still small; specifics of the study programme limit the compatibility of study subjects; it is difficult for working students to combine study or internship abroad with work in a company.

The growth of the number of outgoing students for internships in foreign companies is seen as an opportunity to expand the network of social partners in foreign countries. The results of the year 2020 have been negatively affected by the COVID 19 pandemic situation. The college contemplates the creation of a 'Mobility Window' in the curriculum.

Student mobility is also encouraged through participation in short-term events, such as training sessions, short internships, competitions, master classes and projects. In 2017, 33 students of the study programme participated in short-term training at Riga Technical College (Latvia). In 2018 an international competition called 'The Best KTK Young Motorsit' was organised, in which students from Latvia and Turkey participated.

Information from interviews:

Asked why students do not use the exchange programme or do internships to a greater extent the college explains that the study fields are not so common in other countries. Furthermore, many students are already employed and thus do not have the time.

The students confirm that they know and understand the Erasmus+ programme. Still, there is only one student in the group interviewed who had been on an Erasmus+ trip abroad and another one who applied for a place at a foreign university without success.

(2) Expert judgement/indicator analysis

The college may improve the interest and chances of students if it focuses on those universities abroad which offer similar programmes and tries to establish a continuous relationship with them.

3.3.4. Assessment of the suitability, adequacy and effectiveness of the academic, financial, social, psychological and personal support provided to the students of the field.

(1) Factual situation

Information from SER (p. 25-26)

Financial support includes loans provided and administered by the State Studies Foundation, benefits and social scholarships for the disabled persons granted by the Department for the Affairs of the Disabled, incentive scholarships, allowances and bonuses paid by the college, as well as nominal scholarships awarded by companies to students who have achieved the best study achievements.

Scholarships are awarded taking into account the student's study results or other academic achievements; nominal scholarships are awarded on the basis of cooperation agreements with companies; social and special programme scholarships are paid in accordance with procedures established by the Government of the Republic of Lithuania. During the period of 2017–2019, 73 students of the study programme were awarded nominal bonuses or internship scholarships.

Bonuses or allowances may be paid to the winners of competitions including sports competitions, to organisers of and participants in events and to students for international engagements as well as extraordinary accomplishments for the benefit of the college as a whole.

Students can also receive a state loan and a state-supported loan for the payment of tuition fees. There is also an opportunity for students to pass the subject components free of charge one week after the session, to retake the subject examination three times during the session, to repeat the subject course in the next academic year and to take external tests or examinations. Students are counselled by lecturers of all subjects. Library staff regularly advises students on the use of the electronic catalogue Aleph, databases, information search, etc.

Advanced second and third year full-time students have the right to study on an individual schedule, which is made for one semester. Between 2017 and 2020, 19 students of the study programme studied according to an individual schedule.

Individual studies can also be chosen by students with a degree acquired in another study programme at the college or other educational institutions.

The college also refers to wide-ranging social and psychological support. A Mentoring programme has been developed, where students are assigned mentors (experienced students who give advice to younger students in the daily study process); this is especially relevant for the first-year students, including incoming foreign students. An academic advisor (teacher) is assigned for each group of full-time studies, taking care of students' social and academic adaptation, their academic progress and attendance, continuous contact, and support in solving problems. Part-time Students can meet with the staff of the Study Organization Office and are counselled by phone and e-mail. The SharePoint website, the AIS academic information system and the Moodle virtual learning environment are also tools specified for information dissemination, communication and distance learning. Additional information events on general study matters, study programmes, international mobility, are organised for the first-year students.

Each academic group has elected its group tutors. Group tutors attend tutors' meetings with the college administration if needed, where they have the opportunity to express their views and report problems.

The student dormitory offers its own mentoring programme for supporting the integration and adaptation of students in the new social and cultural environment.

(2) Expert judgement/indicator analysis

The college has provided much information about its activities of its academic, financial, social, psychological and personal support, so that the experts did not have the need to ask additional questions. The provisions are fully adequate.

3.3.5 Evaluation of the sufficiency of study information and student counselling.

(1) Factual situation

Information from SER (p. 26-27)

When signing the learning agreement, each student receives a First-Year Memo, which contains relevant information: registration for studies, e-mail, schedule, connections to the electronic study space, financial support, mobility and leisure opportunities and contact information of the college's departments.

Before the beginning of the school year, the Student Representation organises student camps, where students meet each other and are given information about their specialities, academic life and student representation.

In the first weeks of the academic year students meet the college administration and staff to get acquainted with the documents regulating the KTK activities, academic requirements and career opportunities. Students are assigned a mentor, an academic advisor (teacher) and a tutor (elder student), who help students to integrate, solve problems, etc.

The interests of students are generally represented by the Student Representation, which delegates one student to the College Council and two students to the Academic Council.

The various systems the college uses for organising the dialogue with students is referred to in section 3.3.4.

Information from interviews:

The students told the panel that they had an introduction to their study programme in the first year by a mentor group.

(2) Expert judgement/indicator analysis

The college has put in place the usual methods and organisations for presenting information to the students and giving them participation. Since the students themselves confirmed that those processes are working adequately, the experts do not have major issues to evaluate critically.

Recommendations for this evaluation area:

3.4. STUDYING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT

Studying, student performance and graduate employment shall be evaluated according to the following indicators:

3.4.1. Evaluation of the teaching and learning process that enables to take into account the needs of the students and enable them to achieve the intended learning outcomes.

(1) Factual situation

Information from SER (p. 27-29):

The studies carried out full-time (3 years) and part-time (4 years). Full-time studies are organized on weekdays. Part time studies are organized in sessions; between sessions students study individually, consult with teachers, and the session involves lectures, practices and assessment.

Student participation in lectures, practical work, seminars, laboratory work, and internships is compulsory. Advanced second- and third-year full-time students have the right to study according to an individual schedule.

Studies take place in a systematic way, combining contact work with students' individual learning. Contact work consists of lectures, seminars, laboratory works, practical work, training practices, consultations, defence of individual work, passing examinations and tests, defence of final theses. Contact work of study subjects is performed face-to-face (non-distance) and/or in distance learning.

Distance learning is a new approach based on the use of innovative information and communication technologies, where the teacher and students are usually remote in time and space. Virtual learning environment or by video conferencing. This is a unique opportunity for those who work, live abroad or for other reasons are unable to attend the KTK.

The study material of study subjects is stored, the teaching and learning process is maintained, teaching / learning support is provided, and interactive communication between the teacher-student and between students is ensured by means of the virtual learning environment Moodle. The studies of each subject are organized in such a way that the student has the opportunity to acquire knowledge through theoretical lectures, perform practical and laboratory work, consult with lecturers and study individually. During the theoretical classes, students acquire the necessary subject knowledge, which is consolidated through practical classes and individual work.

According to the regulations of the KTK and the European Credit Transfer System (ECTS), the academic workload for one semester of the full-time student is 30 credits (800 academic hours),

of which about 60 % is devoted to contact work and about 40 % to individual work, the distribution of contact and individual work in part-time studies is on average 35 % (contact work) and 65 % (individual work). Students' work is assessed using a cumulative score system and a ten-point criterion evaluation scale.

About 10 % of the graduates continue their studies at universities immediately after graduation, choosing bridge courses and studies for master's degree.

The students have exceptional opportunities that ensure the continuity of studies and allow planning further studies at Kaunas University of Technology.

Students acquire the right to choose additional study subjects at the university according to a pre-agreed study plan. This strengthens students' subject competences and encourages them to continue their studies in university master's programs. This type of agreement is the only unique case in the national education system.

(2) Expert judgement/indicator analysis

The expert panel can confirm that the information provided in the SER is in line with the legal requirements. We have no comments or insights on this issue. During the interviews, the experts made sure that the processes work in practice, as stated in the SER.

3.4.2. Evaluation of conditions ensuring access to study for socially vulnerable groups and students with special needs.

(1) Factual situation

Information from SER (p. 29):

The KTK pays sufficient attention to students with special needs: provides information on opportunities to receive financial support during studies, prepares individual study and assessment schedules if necessary, provides adapted tasks with the aim to achieve the learning outcomes provided in the study programme.

In the last three years, 4 students have used this opportunity.

There are even several types of financial support available to students with special needs; their provision is administered by the State Studies Foundation. Additional support may be provided to students with special needs participating in the Erasmus+ mobility programme.

The KTK participates in the European Social Fund project "Ensuring Access to Studies for Students with Special Needs" (09.3.1-ESFA-V-708-01), implemented by the State Studies Foundation with partners, which aims to improve the accessibility and conditions of studies for students with disabilities or special needs in Lithuanian higher education institutions. For those with mobility impairments, the KTK has a special staircase, and there are 3 workplaces for students with disabilities in the lecture hall. The dormitory has a special wheelchair access and a room for a disabled person.

(2) Expert judgement/indicator analysis

The explanation by the college in its report is convincing. The fact that four students with special needs attended the study programme in the assessment period is an indicator of the college working successfully in this respect.

3.4.3. *Evaluation of the systematic nature of the monitoring of student study progress and feedback to students to promote self-assessment and subsequent planning of study progress.*

(1) Factual situation

Information from SER (p. 29):

Students' progress is constantly monitored during their studies. Students' academic progress indicators are recorded in two stages: in the report of the medium result summary and at the end of the examination session. The monitoring is performed by the Dean of the Faculty and Study organization office. The tendency is observed that as the average of the competitive score increases, the number of students who terminate their studies because of poor academic achievement decreases. In the academic information system the academic results of full-time and part-time students are collected and recorded, then this information is used for student ranking, reporting, and so on. Collection of study results in the academic information system not only enables students to constantly monitor the results of their work, but also to eliminate academic debts more quickly. Advanced students studying in non-state-funded study places have the opportunity to apply for state funded study places.

(2) Expert judgement/indicator analysis

A continuous monitoring of the progress of students in the study field is ensured. The 'real' feedback is to be conducted in a personalized way only the expert panel couldn't evaluate how it is popular in faculty. Remarks from last evaluation were implemented.

3.4.4. *Evaluation of the feedback provided to students in the course of the studies to promote self-assessment and subsequent planning of study progress.*

(1) Factual situation

Information from SER (p. 29-30):

Feedback is an integral part of the study process - it is useful not only for the development of students and teachers, but also for the improvement of the study quality. The academic feedback provided to students is effective and timely - study results are recorded in the Academic Information System within the regulated time (3 working days). Each teacher organizes

additional individual consultations for students; this time is also used to provide and get feedback. Appropriate and timely feedback allows the student to reflect on his/her work and provides opportunities to ensure a stronger and deeper mastering of the acquired knowledge. This allows the students to better understand their level of achievement, motivates them to improve and become more independent in the study process. Improving student's performance of tasks is a sign of effective feedback.

Another way of enabling all students to participate directly in the process of improving their studies is to provide feedback on their studies by expressing their views in student surveys.

Information from interviews:

Students are eager to take part in regular surveys ('especially if an issue has come up').

(2) Expert judgement/indicator analysis

The variety of feedback (official - using created processes and tools and personal communication) is a good method for reaching all students, taking into account the variety of tasks they are given and the variety of their personalities.

3.4.5. Evaluation of employability of graduates and graduate career tracking in the study field.

(1) Factual situation

Information from SER (p. 30-31):

According to the SER, graduate employment surveys are performed annually at least 6 and 12 months after graduation, and these data are revised after one year. The data are collected by a quality specialist, results are discussed and analysed in the Study Programme Committee, approved by the Academic Council and published on the college intranet.

In the SER employment indicators of full-time and part-time students of the study programme are presented only for 2019. Employment indicators for 2016, 2017 and 2018 were provided after the meeting on inquiry by the expert panel.

The labour exchange data provided by companies and other economic entities are systematically analysed. Every year, the Lithuanian Labour Exchange publishes a list of professions and specialities in demand in the Kaunas region. The obtained data are summarised and analysed, during which the demand of graduates is evaluated.

According to the data of the Labour Exchange, the average employment of the KTK graduates according to the speciality is 75 %. Employers' feedback on specialists trained at the KTK is good, and therefore the employment problem is not acute, as there is a shortage of specialists trained by the KTK in the Lithuanian labour market.

According to the self-evaluation report the number of graduates employed by qualification level in the last three years is not high (below 10%). The college explains this phenomenon by its

experience that graduates tend to get jobs on a lower qualification level first, with the option of being promoted soon.

The opinion of graduates and employers on the professional preparation of graduates and acquired competences after graduation is collected according to KTK Procedures of Survey. This type of information is collected systematically and the results obtained on its basis are used to improve the content of the study programme and the study process.

Specific employment indicators of full-time and part-time students of the study programme are presented in Table 4.1.

It is noticeable that most graduates are employed according to their speciality. Since they have developed general competences as well, they are also fit for other professional activities.

Career tracking of graduates is performed by surveys.

Information from interviews:

The employers were asked how many KTK graduates they employed and whether there had been deficits in their expertise. They recalled a significant number of graduates they had employed and generally had a good opinion about their expertise. They see strengths in technological skills, also due the training centre jointly used with one of the employers. There are weaknesses in hydraulics, which is especially important in agricultural machines.

The graduates were asked specifically about the value of their studies, including the internships, and confirmed that the 1st study cycle had been a good preparation for the 2nd study cycle, practical training and internship helped with finding a job easily, the job tasks were easy to perform and the creation of new businesses was also supported.

The students were asked about their plans for attending further study programmes. Some are planning to go to Kaunas technical University or a university in Vilnius, but most prefer to go to a job first. Others carry on with their studies at the college in other departments.

(2) Expert judgement/indicator analysis

In the SER the employment indicators of full-time and part-time students of the study programme are presented only for 2019. Employment indicators for 2016, 2017 and 2018 were provided after the meeting on inquiry by the expert panel. The data provided were prepared in different ways, so that it was impossible to qualitatively compare changes in results and provide accurate conclusions.

The expert panel recommends improving the process of monitoring the employment and career of graduates, and clarifying the effective methodology about how precise data is obtained, how data will be evaluated and how progress will be measured.

The expert panel was interested in the statement that the number of graduates employed by qualification level in the last three years had not been high - up to 10%. This figure seems very

low when comparing it with the Government created database (STRATA). It was stated that the Lithuanian average employment of graduates, as highly qualified specialists of the study field of Transport Engineering is around 30%.

The expert panel recommends checking carefully why this level is so low at the faculty. The faculty might discuss this topic with stakeholders and employers' representatives and find ways for improvement.

During the meeting with alumni employers and social partners, the expert panel got really positive feedback. There was only small criticism regarding the narrow variety of final thesis topics.

3.4.6. Evaluation of the implementation of policies to ensure academic integrity, tolerance and non-discrimination.

(1) Factual situation

Information from SER (p. 31):

The Code of Academic Ethics sets out the values to be followed by all members of the KTK academic community (students, teachers and administration) and describes the ethical norms for the interrelationships and responsibilities of members of the KTK community.

Each student who enters the KTK signs a Student Declaration of Integrity, which is valid for the entire term of the learning agreement.

To ensure honest study in the study programme educational events are the main tool. They teach students how to plan their time more efficiently, how to learn more systematically, memorize information, and manage emotions before and during examinations.

Students also confirm they are aware of violations of the principles of academic integrity and fair competition possibly leading to expulsion from the KTK. During the assessment of studies and learning outcomes, teachers must also follow the KTK Code of Academic Ethics, which provides liability for violation of the principle of fair competition, copying, plagiarism or any other form of academic dishonesty related to the assessment of learning outcomes.

There were no cases of violation of the principles of academic honesty, tolerance and non-discrimination in 2017-2020.

Information from interviews:

A plagiarism software is being introduced.

(2) Expert judgement/indicator analysis

Systematic regulations covering cases of the violation of academic ethics are in place. The experts are astonished, though, that there have not been even minor cases of plagiarism in exams

etc. and wonder whether there are other mechanisms in place dealing with such minor issues. Since they did not ask specific questions about this issue in the interviews, they refrain from assessing such minor issues.

Regarding intellectual property and correct quotation, the expert panel recommends implementing plagiarism detection software programs for bachelors' theses.

3.4.7. Evaluation of the effectiveness of the application of procedures for the submission and examination of appeals and complaints regarding the study process within the field studies.

(1) Factual situation

Information from SER (p. 31):

The KTK is committed to ensuring ethical coexistence of all members of the KTK community. The procedure for the submission and hearing of complaints of students, teachers and other employees related to violations of ethical norms is regulated by the KTK Procedures for the submission and handling of complaints regarding ethical violations.

Complaints about violations of ethics are dealt with by the Professional Ethics Committee or the Academic Ethics Committee.

In 2017–2020, there was no case of students submitting an appeal or complaint.

(2) Expert judgement/indicator analysis

A methodology of submitting appeals and complaints regarding the study is difficult to evaluate for the expert panel because no events are mentioned during the evaluation period.

Apart from this methodology, students have the chance to submit their thoughts on the study content, including their opinion on the teaching methods at the end of each semester, by filling in a questionnaire for each course.

Recommendations for this evaluation area:

- The expert panel recommends improving the process of monitoring the employment and career of graduates by clarifying the effective methodology about how precise data is obtained, how data will be evaluated and how progress will be measured.*
- The expert panel recommends checking carefully why the number of graduates employed by qualification level is so low at the faculty. The faculty might discuss this topic with stakeholders and employers' representatives and find ways for improvement.*
- The expert panel recommends implementing plagiarism detection software programs for bachelors' theses.*

3.5. TEACHING STAFF

Study field teaching shall be evaluated in accordance with the following indicators:

3.5.1. *Evaluation of the adequacy of the number, qualification and competence (scientific, didactic, professional) of teaching staff within a field study programme(s) at the HEI in order to achieve the learning outcomes. Entrance requirements are well-founded, consistent and transparent.*

(1) Factual situation

Information from SER (p. 33-34, Annex 5):

There are 26 teachers working in the study programme, 20 of whom teach study field subjects. 50 % of study field subject teachers have a PhD degree (up from 37% at the time of the last evaluation), and 12 teachers in the study field (60 %) have more than 3 years of practical work experience. All 20 teachers of the study field have been working at the college for at least 3 years and have at least half-time positions.

Additionally, visiting lecturers, representatives of the social partners and professionals in individual study field subjects, are invited. Teachers-practitioners of foreign higher education institutions are invited to work in the study programme; there were two in 2017-2018, three in 2018-2019, and four in 2019-2020.

During the evaluated period, the average age of teachers remained stable, at 50 years. Currently there are several young visiting lecturers who may join the team of the lecturers of the study programme in future.

Teaching staff are employed through open competition according to position criteria. The share of researchers in teaching complies with the legal requirements. Visiting lecturers, who are not included in the list of teachers teaching study field subjects, are recruited according to the needs of the study programme; they are usually representatives of business enterprises and experienced professionals.

The assessment of the general competences of teachers, as well as other employees of the college, takes place every year, during annual performance evaluation interviews. Competence development plans for each employee are designed to best meet the needs of the individual employee and the college.

Out of a total of 26 teachers working in the study programme, 12 speak English and 2 speak German (at least B2 level). One of the requirements to new teachers is at least level B2 foreign language skills and/or experience teaching in a foreign language. 54% of the teachers know at least one of the foreign languages of the EU.

For further improvement of teachers' foreign language skills, participation in the Erasmus + mobility programme is promoted. One of the requirements for newly employed teachers is

knowledge of a foreign language at least B2 level and / or experience in teaching in a foreign language.

In the assessment period, with the number of students of the field having reduced by 22%, the existing field subject teacher to student ratio 18.7 is close to the limit (maximum) value (20 for the science area of technology) established in the Methodology for Determination of Actual Facilities of the School of Higher Education may be considered as rational and enables assurance of the quality process of studies.

Information from interviews:

Asked by the panel about how many training hours and places per year are allocated to non-academic staff the college stated that they have a 5-year plan for the development of staff but did not specify figures.

A weakness they themselves acknowledge is the fact that some teachers have not had sufficient work practice.

(2) Expert judgement/indicator analysis

According to the data provided in Annex 5 to the Self-Assessment Report and to the additional information provided at the meetings with the experts, the number and composition of the teaching staff within the field study programmes at the HEI is adequate for enabling successful implementation of the study programme under the Transport Engineering field at the HEI. The qualification and scientific, didactic and professional competences of the teaching staff conducting applied research in the field of Engineering Sciences, publishing the results thereof in the scientific journals, and participating at the national and international scientific and practical events are adequate for achievement of the learning outcomes.

The subject teacher to student ratio of 18.7 may be considered as rational and enables the assurance of the quality process of studies.

The composition of the teaching staff employed for the study field programmes exceeds the requirements of the related regulations (General Requirements on Execution of the Studies, Description of the Group of Engineering Study Fields) considerably.

The participation of the teachers-practitioners (12 teachers-practitioners in the assessment period) in the programmes by delivering the study field subjects received positive assessment by the experts.

The turnover of the field teachers is small, which essentially enables consistent implementation of the learning outcomes of the study field and programme, builds the intellectual base for applied research activities, consistent development of didactic competences. However, more attention should be paid to updating the teaching staff composition, e.g. with a substitution strategy of the teachers approaching retirement.

The attention of the HEI to the teachers' abilities to communicate in foreign languages is considered to be a positive aspect.

The college gave information on the composition of its teaching staff and evidence that it is sufficient in quantity. Details about the development of staff were sparse.

3.5.2. Evaluation of conditions for ensuring teaching staffs' academic mobility (not applicable to studies carried out by HEIs operating under the conditions of exile).

(1) Factual situation

Information from SER (p. 35):

The number of teachers of the study programme participating in mobility activities increased from 6 in 2017/18 to 12 in 2019/20, which is 60% of teaching staff. At the moment, international activities cannot be carried out due to the COVID 19 pandemic.

Teachers from other foreign countries (Latvia, Turkey, Portugal, Slovenia) have been invited to read lectures and seminars to the students of the study programme. In 2019 there were six incoming teachers (up from three in 2017).

Information from interviews:

The college has a Study Exchange Fund for supporting international exchange of teachers in the entire college. The faculty applied for 3-4 foreign teachers to be sent, but only two could be financed and were admitted. Additionally, the Erasmus programme is used, and representatives of businesses and companies are invited, according to a strategic plan.

(2) Expert judgement/indicator analysis

Considerable attention is given at the HEI to the improvement of the international scope of activities. The teachers have been provided with appropriate conditions ensuring academic mobility, i.e. with the opportunity to undergo internship, exchange professional experience, improve their competences and practical skills of teaching in a different academic setting. Teachers' academic mobility takes place in different forms, such as delivery of lectures, participation at conferences, internships, seminars.

The increased academic mobility of the teachers has been assessed positively: in the assessment period, 25 teachers in the Transport Engineering study field visited educational institutions under the exchange programme. It should be noted that it is important for the teachers to participate not only in the Erasmus+ programme, but also to cooperate with foreign schools of higher education, organizations, and companies for development of applied research and project activities in the field of transport engineering.

The number of visiting teachers is fairly large (15); however, the integration of activities by the visiting teachers needs to be addressed – more intensive initiation and, accordingly,

implementation of joint applied research and projects should be possible by using the colleagues' competences and expertise.

3.5.3. Evaluation of the conditions to improve the competences of the teaching staff.

(1) Factual situation

Information from SER (p. 35):

According to the KTK Regulation on Applied Research and Experimental Development, KTK teachers have to maintain and improve their qualification by conducting applied research, publishing their results in the scientific press and using at least one of several suggested forms of qualification development at least once every five years. The areas of applied research and experimental development to be performed by the teachers are related to the study programmes carried out or intended to be carried out at the college.

The KTK Procedure for Organisation of Competitions and Attestation for the Position of Teachers also stipulates that teachers improve their research, scientific, didactic or professional activities. Teachers constantly and actively improve their qualifications in various training activities, courses, seminars and conferences. In the last three years, each teacher has participated in qualification development activities 12.7 times on average, with an average duration of 63 hours.

In 2018 – 2019 five teachers and in 2019 – 2020 three teachers of the study programme graduated from the professional study programme “Pedagogics” at Vytautas Magnus University, thus improving their pedagogical qualification. In 2019-2020 two teachers attended courses for the pedagogical qualification at Klaipeda University.

Teachers plan qualification development activities regularly, and their implementation is monitored during the annual attestation.

Information from interviews:

According to the statements during the interviews, the knowledge of English of the teaching staff is good already, but still being improved; material in English is supported, and teachers are motivated to teach abroad more.

Teachers have gone to Latvia and, for an English course, to Spain.

(2) Expert judgement/indicator analysis

The panel assesses the efforts of the college to improve the pedagogical qualification of their teachers as adequate. The improvement of scientific qualification, though, appears to rest with the individual initiative of the teachers.

Appropriate attention has been given at the HEI to teachers' improvement in didactic and professional activities, though the systematic character of the process (formal procedure, planning, organisation, funding, improvement areas, methods) could be emphasized more. The arguments expressed by the teachers and representatives of the administration at the meetings with the experts provide positive support of the professional development cases/forms referred to in the Self-Assessment Report: by using the state budget, own or project funds of the HEI and third parties, funding for participation in the courses, seminars, conferences, internships, Erasmus+ and other international programmes.

The cooperation with Vytautas Magnus University, which has resulted in the development of pedagogical qualification of the field teachers (8 teachers completed the professional development study programme "Pedagogics" during the assessment period) is considered to be a positive aspect.

With the facilities allocated to the study programme being upgraded systematically, a system for development of technical competences of non-teaching staff that would be equivalent to the professional development procedure for the teaching staff needs to be developed.

Recommendations for this evaluation area:

- Activities in the academic exchange programme should be intensified, with the aim of linking it more closely to the Transport Engineering study field.*
- More intensive teacher involvement in applied research in the field of transport engineering (commissioned by industry) is to be recommended, correspondingly leading to more active publication of research results in scientific journals.*

3.6. LEARNING FACILITIES AND RESOURCES

Study field learning facilities and resources should be evaluated according to the following criteria:

3.6.1. Evaluation of the suitability and adequacy of the physical, informational and financial resources of the field studies to ensure an effective learning process.

(1) Factual situation

Information from SER (p. 38-39):

The study process of the study field is carried out in 16 lecture rooms and 10 laboratories. Data with an internal view of learning facilities and resources were provided. The SER counts the classrooms and laboratories as 28 in total and provides a detailed list of them in Annex 6. The

college has an internal internet network and a Moodle environment, containing the methodological material prepared by teachers.

As groups of students are regularly divided into subgroups, the number of workplaces in laboratories is sufficient, according to the SER. During classes, the number of students (30-40 people) does not exceed the number of workplaces in the premises.

Initial practical skills are formed during the training practice (metalwork and welding), which is carried out in the KTK laboratories. The facilities of the KTK are regularly updated with new methodological and technical tools in order to ensure a qualitative implementation of the study programme. The SER stated that classrooms, laboratories and practical training facilities are sufficient for the need of the programme.

A large number of laboratories have been installed and equipped with the help of social partners: one particular example is the KTK Bosch Practical Training Centre. Following this public-private partnership model, the VW automobile structure laboratory and Tobis wheel repair laboratory were established.

The laboratories are equipped with equipment and devices for work and study in the field of automobile technical maintenance.

The KTK participates in the State Studies Foundation project for students with disabilities "Increasing the Accessibility of Studies". This project aims to improve the accessibility of higher education and the quality of studies for students with special needs.

Final practices are performed outside the KTK, in companies that are working in the field of automobile technical maintenance and repair. During the last 3-year period, 40 students have completed internships in companies abroad using the Erasmus + programme.

In the last 3 years, 40 students have completed practice in companies in foreign countries (Germany, Norway, Latvia, Great Britain, Sweden) using the Erasmus + program.

Regarding the library, all information about the publications in the college library can be found by visiting the virtual library: ktk.library.lt. Books can be read in the library or taken home for a set period of time. In the Lithuanian Virtual Library, it is possible to search not only the resources of the KTK library, but also the eLABa resources of the Lithuanian Academic Library. The literature list of the study programme "Automobile Technical Technical Maintenance" is presented in Annex 7; it contains 94 items.

A complete renovation of the library and reading room is currently underway, during which students will be equipped with 20 computerized places for individual work, a group work area and an integrated publishing centre.

Since 2007 the KTK has been subscribing to EBSCO Publishing database, since 2012 - Emerald database, and since 2013 to the Taylor & Francis database.

Information from interviews:

During the expert panel meeting, the topic of correlation laboratories equipment and learning outcomes was discussed with KTK staff and teachers.

The panel inquired about the Bosch training centre (SER p. 39); they are told that the university owns the building and the Bosch company owns the equipment. The college has usage rights on 4 days per week.

Coursework is done including the use of databases, which is able to be run remotely.

Labs and classrooms have been improved, but are not regarded as sufficient for research activities on a great scale, according to the members of the faculty. They regard it as sufficient for teaching, though, and for collaboration with industry. Possible further improvements are not adequately financed at the moment, but there will be more funds from 2021. The college is on 3rd place in funding among all colleges in Lithuania in the new investment programme. Plans comprise measuring equipment and a centre for research on alternative fuels.

The students asserted that some of them chose the programme because the equipment of the laboratory convinced them.

The college can also use the Volkswagen Centre and collaborates with Volkswagen in the organisation of lectures, with sending lecturers, internships, holiday practice and on career days. The support with modern electric and hybrid automotive technologies, which the college does not have yet, is particularly valuable for the programme. The collaboration with this company, as well as with Toyota, is vital for lorry and bus technology too.

During the visit the expert panel discussed this project with the administration. The administration assures that by the middle of 2021 they expect to finish all technical works.

(2) Expert judgement/indicator analysis

The expert panel can confirm the impression that the cooperation with stakeholders and social partners in the transport engineering field is very active. Results are the Bosch Practical Training Centre, Tobis wheel repair laboratory and others.

KTK racing team workshops have attracted a lot of interest, for which 50% of the financial budget is provided by the social partners.

There is some lack of heavy duty transport maintenance laboratories at KTK's premises. During the visit the SER staff mentioned that this kind of practical work could be held only in social partner premises. Some steps are taken to improve this situation with Nexus trucks.

Generally, the expert panel is interested that training practices are carried out in the laboratories of the Faculty, but it may be possible that the current arrangement also works satisfactorily. It may be worth encouraging students to focus on internships in companies during technological practices. It is appreciated that 40 students have completed internships in companies abroad using the Erasmus+ programme in the last 3 years. Cooperation with Social partners appears to be good and the active involvement in the allocation of final practice placements is successful and useful to the students.

At the library there are sufficient methodological resources for studies in the study field. During the evaluation period there was a big temporary discomfort with library premises because of a renovation project that after 6 years is still ongoing.

3.6.2. Evaluation of the planning and upgrading of resources needed to carry out the field studies.

(1) Factual situation

Information from SER (p. 39-40):

The planning and updating of the resources required for the study field studies is coordinated with the KTK resource planning strategy. During the last 3 years, 952,000 EUR were invested in the physical improvement of the KTK infrastructure (including equipment). With these funds, computerised workplaces were installed, computers and software were purchased and upgraded, the quality of staff and student workplaces was improved, and classrooms were installed and renovated. At the Bosch Training Centre, the equipment needed to teach the study field subjects is constantly updated according to the market developments and the latest technologies in the automotive industry.

Project proposals are being prepared to install new laboratories for car maintenance and maintenance of electric vehicles. Following growing demand in this field, the installation of a new material laboratory for sports cars is envisaged in cooperation with social partners.

The SER states that the equipment needed to teach the study field subjects is constantly updated according to the market developments and the latest technologies in the automotive industry.

Information from interviews:

The panel inquired about the remark in the SER that 'it is planned to install and equip laboratories for exploitation materials, technical maintenance of cars and maintenance of electric vehicles' (SER p. 40). The management clarified that there are no plans for a new building but a rearrangement of the facilities and that a reequipment is necessary. The time horizon is about 2-3 years. Better internal equipment for electric and hybrid transmissions and for lorry and bus technologies is planned.

The management showed the panel a short presentation about their library upgrading project: there will be an IT zone, a groupwork zone, a print & copy zone and a teachers' zone. Completion is planned for 2021.

During the meeting the expert panel got information that KTK already submitted a few applications for laboratories upgrading to future economy DNA funds. KTK expected to get significant financial support from 2020 because they were allocated at 3rd place in funding among all colleges in Lithuania in the new investment programme.

Proposals are being prepared: to install new laboratories for car maintenance and maintenance of electric vehicles in place of partially used outdoor warehouses (260 m²); due to the increased need for sports car preparation and maintenance engineers and due to the developed activities of the auto club "KTK Racing Division", to increase premises for their workplaces; to install and equip Exploitation material laboratory in cooperation with the social partners. The KTK Racing

Division will be allocated a budget for activities of about 100,000 EUR, of which 50% is sponsored.

The faculty action plan from the last evaluation proposed installing and equipping laboratories with working materials for the technical maintenance of cars and maintenance of electric vehicles.

During the expert panel session it turned out that these laboratories have remained in the planning stage.

(2) Expert judgement/indicator analysis

The faculty should calibrate and specify the non-executed plans with the financial possibilities of KTK to make it possible to achieve the planned results.

During the meeting the expert panel heard a lot of plans from KTK administration of possible further improvements, but budget allocations for these projects are not mentioned in the SER report. The projects mentioned are apparently not adequately financed and might be called visions at the moment.

Recommendations for this evaluation area:

- See 3.6.2.

3.7. STUDY QUALITY MANAGEMENT AND PUBLICITY

Study quality management and publicity shall be evaluated according to the following indicators:

3.7.1. Evaluation of the effectiveness of the internal quality assurance system of the studies.

(1) Factual situation

Information from SER (p. 42):

The main document setting out the principles for internal quality assurance is the Quality Manual, which includes the following fields of study: Development and approval of study programmes; Student-centered learning, teaching and assessment; Admission of students, study process, recognition and awarding of diplomas; Teachers; Study resources and student support; Information management; Public information; Continuous monitoring and periodic evaluation of study programmes; External quality assurance.

In order to ensure the quality of the implementation of study programmes, the college continuously monitors the study programmes. It evaluates the changes of professional competencies in the changing market, analyses the opinion of students, teachers, graduates and employers, analyses data on the provision of resources, involves students, teachers, employers and graduates in the study programme evaluation and improvement processes and identifies the strengths and areas for improvement of study programmes.

The monitoring of the study programmes in the KTK is regulated by several internal documents mentioned in the SER.

The self-evaluation report emphasises that the effectiveness of the study internal quality assurance system is based on a clear division of levels of responsibility, subordination and cooperation, as well as segmentation of activities and regulation of procedures. The quality assurance system is based on a procedural approach and focuses on operational efficiency, continuous improvement as well as meeting the needs of social stakeholders.

Information from interviews:

As a major change in the organisation of the faculty, the Study Programme Committee was set up and put under the control of the (new) Department of Study Programmes.

(2) Expert judgement/indicator analysis

The theoretical framework for quality assurance is in place. The applicability of the theoretical processes usually shows in its practical application. As information about examples was not provided in the report the panel asked about one and got a sufficient answer, thus giving evidence that the quality system works in an adequate way.

3.7.2. *Evaluation of the effectiveness of the involvement of stakeholders (students and other stakeholders) in internal quality assurance. Evaluation of the planning and upgrading of resources needed to carry out the field studies.*

(1) Factual situation

Information from SER (p. 42-43):

In order to involve stakeholders in the preparation, evaluation and improvement of the study programme, a stakeholder feedback system has been implemented and continuously developed. Surveys and discussions of target groups are organised, and the summarised results are used to improve the study programme, the organisation of the study process, and the composition and qualification of the academic staff.

1. Students. The college has a Student Representation representing the interests of students at the KTK and national level. The Student Representation delegates its members to the KTK

Council and the Academic Council, thus ensuring the participation of students in the management of the KTK and in the monitoring of the organisation and implementation of the study process. At the programme level, the student representative is included in the Study Programme Committee and thus directly involved in the quality assurance processes.

2. *Graduates.* Graduates are interviewed immediately after their graduation about the fulfilment of their expectations throughout the study period, their opinions on the organisation of the study programme, facilities, and pedagogical as well as scientific competence of teachers. The monitoring of graduates is also performed 6 and 12 months after graduation; they are treated as experts highlighting the needs of the labour market. However, due to the small number of respondents, the data are incomplete and this area should be improved.

3. *Teachers.* Teachers can express their remarks and suggestions by filing surveys and in meetings and actively participate in the activities of the Study Programme Committee. They are introduced to the report and proposals of the chairman of the Final Thesis Qualification Commission.

4. *Social partners.* They are invited to submit proposals and are involved in the evaluation process of the study programme as chairmen of the degree-awarding commission. Direct contacts with social partners are maintained at conferences, seminars and business meetings.

5. *Academic partners.* Cooperation with Lithuanian and foreign academic partners creates preconditions for sharing good practice; it creates a unique opportunity to strengthen the accumulated research and study potential, achieve higher national and international competitiveness, develop interdisciplinary studies, increase teachers' competencies and efficiency.

Information from interviews:

There are surveys every semester, but after graduation no surveys have reached the graduates (due to e-mail problem, cf. below). Individual contacts, though, have been working well all the time. Since the College e-mail address of students now expire after graduation, the College has been introducing a new contact system, so that there is a gap in contacts at the moment. For this reason, the SER shows only results for graduate surveys in 2018, whereas data for 2016 and 2017 are missing.

There is an alumni association, which is known to some alumni, though not to all. One employer of those interviewed works in the thesis committee.

(2) *Expert judgement/indicator analysis*

All stakeholders are involved in the quality improvement processes of the college in an adequate way.

3.7.3. *Evaluation of the collection, use and publication of information on studies, their evaluation and improvement processes and outcomes.*

(1) Factual situation

Information from SER (p. 43-44):

Before preparing the quality improvement plans, the strengths, activities to be improved, possibilities for improvement are analysed and possible disturbances are forecast. Areas of evaluation are defined according to an internal KTK Methodology.

The actual evaluation of the study programme takes place in a systematic way to avoid fragmentation and an overload for staff. The information collected and the results of its analysis are used by teachers, the Study Programme Committee and the college administration. Teachers use it for the improvement of the subjects taught, the Study Programme Committee and the college administration use it for continuous quality assurance and improvement of the study programme, the preparation of the self-evaluation report, teacher certification, and general improvement of the college activities.

Evaluating the real qualitative changes over the last three years, the greatest positive results have been achieved in the areas of the facilities, improvement of teachers' didactic and professional competences, and intensification of international and applied science activities.

Information from interviews:

The data obtained for the SER is analysed by the central quality department of the college, ensuring a professional management of the data.

(2) Expert judgement/indicator analysis

The collection of information is adequately documented and comprehensible. There is no information about the publication of the information in this section, but in section 3.7.2 the practice of involvement of the stakeholders is explained; the experts regard the current practice as adequate.

3.7.4. Evaluation of the opinion of the field students (collected in the ways and by the means chosen by the Centre or the HEI) about the quality of the studies at the HEI.

(1) Factual situation

Information from SER (p. 44-45):

In order to effectively and systematically measure students' expectations and needs and their satisfaction, anonymous student surveys are conducted every semester, according to an internal college document. The data of the analysis of the survey results are used for the evaluations of teachers and study subjects.

There are surveys on paper as well as electronic, and there are by group meetings, focus group interviews and case studies. The summarized results of the surveys are presented at the meeting

of the Academic Council, at the meetings of the Study Programme Committee and at student meetings.

Three years ago, student surveys were coordinated by the KTK Student Representation and the Faculty Tutor Council, but the college was not satisfied with their level of activity and transferred the responsibility for that task to a dedicated study quality specialist.

Students evaluate several aspects of their college environment:

1. Organisation of the study process: This includes the schedule of lectures and examinations, changes in study processes, the availability of information on the Internet and in the KTK e-mail system.

2. Realisation of the study programme: Students evaluate the study visits to companies, the range of placements, seminars and lectures by visiting specialists.

3. Study environment: Students evaluate classrooms, equipment and software, access to electronic study resources, spaces for individual and group work and leisure, catering and library resources.

4. Teacher qualification. The evaluation of teachers' qualification from the point of view of the students includes the teachers' general competence, the assessment system applied in their study process, their objectivity in assessing study achievements, technologies used during lectures, the relevance of the lecture material, teachers' communication and their cooperation with students.

During the surveys, students are asked to submit suggestions, which are taken into account in improving the quality of studies.

The self-evaluation report cites both the positive and the negative findings of the students regarding the specific items and clearly expresses the perspectives for improvement.

Information from interviews:

For small problems students tend to seek direct contact to lecturers. If the direct teacher contact is not sufficient there is a mentor for support. Students are also eager to take part in regular surveys ('especially if an issue has come up').

The students are generally self-confident about their own role in the college as to taking part in the processes of the faculty by inquiring about new things, bringing their own experience and making the college better-known through races and other competitions.

(2) Expert judgement/indicator analysis

The self-evaluation report is very clear and detailed about the involvement of students in the quality improvement processes, including positive as well as negative opinions and perspectives for improvement. The students confirm that they take part in the processes actively and show confidence about the results of their involvement. The experts think this is a very good situation and a significant achievement for the organisation.

Recommendations for this evaluation area:

- ---

IV. RECOMMENDATIONS

- 1. The learning outcomes of the field programme do not reveal the uniqueness of the programme specializations. This aspect shall be corrected – the content of the learning outcomes of the programme can and must reflect the specificity of the specializations and the knowledge and skills gained under the subjects studied within the specializations.*
- 2. Attention should be paid to possibly disproportionate links between study subjects and programme outcomes: the final project achieves three quarters of the programme outcomes, while one of the programme outcomes is achieved by studying nineteen subjects.*
- 3. It is recommended to regulate the practice of individual studies and tasks in the part-time mode of studies. Alternatives of the applied studies and relevant assessment methods must be defined in the study module programmes.*
- 4. The topics of the final projects do not show much diversity. Restricting the free choice of thesis subjects by students might be necessary to achieve more breadth. Cooperation with social partners might also be useful in providing the opportunity to develop the students' competence of creativity better.*
- 5. To assure unbiased and fair assessment of the students, it is recommended to formulate and present the assessment criteria reflecting the evidence used by the teacher in assessment of the knowledge and skills acquired by the student (by identifying their weight, i.e. effect on the assessment mark) in the assessment forms provided for the study modules.*
- 6. It is recommended to take part in more national and international programmes for attracting more invited/foreign lecturers and researchers and developing international cooperation.*
- 7. It is recommended to select conferences with priority on international recognition in the area of Transport Engineering.*
- 8. The expert panel recommends improving the process of monitoring the employment and career of graduates by clarifying the effective methodology about how precise data is obtained, how data will be evaluated and how progress will be measured.*
- 9. The expert panel recommends checking carefully why the number of graduates employed by qualification level is so low at the faculty. The faculty might discuss this topic with stakeholders and employers' representatives and find ways for improvement.*
- 10. The expert panel recommends implementing plagiarism detection software programs for bachelors' theses.*
- 11. Activities in the academic exchange programme should be intensified, with the aim of linking it more closely to the Transport Engineering study field.*

12. More intensive teacher involvement in applied research in the field of transport engineering (commissioned by industry) is to be recommended, correspondingly leading to more active publication of research results in scientific journals.

V. SUMMARY

The study programme Automobile Technical Maintenance conforms to the needs of the society and labour market, mainly in the Kaunas region.

The existing coherence between the programme content and qualification awarded enables the graduates to work in the transport sector. The graduates awarded with the vocational Bachelor of Engineering Sciences degree are employed at the automobile maintenance or service companies or become self-employed. Graduates of the study programme additionally have the possibility to seek higher university education.

The fact that the college offers only one study programmes in Transport Engineering reflects the dynamics/stability of the number of students entering the field programmes, consistent distribution of the students across the three specializations under the study programme and the employment rates after the graduation, the demand for and profile of the automobile transport specialists, as well as the facilities and human resources available to the HEI.

The specialisation on sports car technology may offer a good path for keeping up student numbers, especially if it is linked with new car technologies such as electric, hybrid and hydrogen.

The learning outcomes are aligned to the requirements on monitoring the labour market changes and form the required specialist competences. The study programme conforms to the mission, objectives of activities and strategy of the institution. However, the advertised learning outcomes of the field programme do not reveal the uniqueness of the programme specializations sufficiently.

The curriculum design of the study programme is in line with the General Requirements on Execution of the Studies. The level of complexity of the learning outcomes conforms to the level 6 qualification requirements under the European and Lithuanian Qualifications Framework for higher education.

The close link between the theoretical materials and practical classes as well as the application of flexible (including remote) teaching and learning methods and techniques play an important role in the achievement of the programme aims and successful implementation of the learning outcomes. The college appears to offer an adequate balance of theoretical and practical expertise being taught to the students.

In an international context, the credits for electives are not very high, but compared with similar programmes within Lithuania and taking into account the chances and limitations of a college, it appears adequate.

The general requirements of final theses, being a final check of the abilities of the students and their theoretical and practical expertise, appear to be fulfilled.

However, all thesis papers are focused on special parts of the service workshop design, although according to the subjects works could cover a wider range of topics. Perhaps the freedom to choose topics should be restricted with the aim to achieve more variety.

The HEI aims at ensuring the unity of research and studies by performing commissioned R&D activities for business, industry and regions. To this end, there is good cooperation with business enterprises and other social partners and their involvement in the study process and impacts on the subjects of fulfilled research projects. But most of them refer to the national level only. More international collaboration is needed for being able to invite distinguished researchers and lecturers from the study field. The college may also improve the interest and chances of students if it focuses on those universities abroad which offer similar programmes and tries to establish a continuous relationship with them.

Continuous monitoring of the progress of students in the study field is in place. Additional feedback is conducted in a personalized way. This variety of feedback is a good method for reaching all students, taking into account the variety of tasks they are given and the variety of their personalities.

The share of graduates employed at an adequate qualification level appears low. The faculty might discuss this topic with stakeholders and employers' representatives and find ways for improvement. Generally, the expert panel recommends improving the process of monitoring the employment and career of graduates and clarifying the effective methodology about how precise data is obtained, how data will be evaluated and how progress will be measured.

The number and composition of the teaching staff and their qualification as to scientific, didactic and professional competences are adequate for enabling successful implementation of the study programme. The participation of the teachers-practitioners also receives positive assessment by the experts. Details about the future development of staff remained unclear, however. It also remained unclear how the college plans to improve the practical experience of teachers.

The turnover of the field teachers is small, which essentially enables consistent implementation of the learning outcomes of the study field and programme, builds the intellectual base for applied research activities, consistent development of didactic competences. However, more attention should be paid to a substitution strategy of the teachers approaching retirement.

The attention of the HEI to the teachers' abilities to communicate in foreign languages is another positive aspect. The teachers have been provided with appropriate conditions ensuring academic mobility, and the number of visiting teachers is also fairly large; however, the integration of activities by the visiting teachers needs to be addressed.

With the facilities allocated to the study programme being upgraded systematically, a system for development of technical competences of non-teaching staff that would be equivalent to the professional development procedure for the teaching staff needs to be developed.

There is lack of heavy duty transport maintenance laboratories at KTK's premises. Generally, carrying out training practices in the laboratories of the Faculty would be preferable, but it may be possible that the current arrangement with social partners also works satisfactorily.

All stakeholders are involved in the quality improvement processes of the college in an adequate way. The college has put in place adequate methods and organisations for presenting information to the students and giving them participation.

The self-evaluation report is very clear and detailed about the involvement of students in the quality improvement processes, including positive as well as negative opinions and perspectives for improvement. The students confirm that they take part in the processes actively and show confidence about the results of their involvement. The experts think this is a very good situation and a significant achievement of the organisation.

Expert panel signatures:

1. Prof. Dr.-Ing. Haldor E. Jochim, (panel chairperson), academic,
2. Prof., Dr.Sc.Eng. Irina Jackiva (Yatskiv), academic,
3. Prof. Dr. Artūras Keršys, academic,
4. Mr Edmund Lisovski, representative of social partners',
5. Mr Gytautas Urbonas, students' representative.