

CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT STUDY FIELD of CIVIL ENGINEERING

at PANEVĖŽIO KOLEGIJA

Expert panel:

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- 3. **Professor dr. Marija Malenkovska Todorova**, member of academic community;
- 4. Associate Prof. Dr. Ernesta Liniauskienė, member of academic community;
- **5. Dr. Mindaugas Gikys,** *representative of social partners;*
- **6.** *Ms. Diana Malkova*, students' representative.

Evaluation coordinator - Jūratė Čergelienė

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Study Field Data*

Title of the study programme	Construction	Road Engineering
State code	6531EX039	6531EX056
Type of studies	College studies	College studies
Cycle of studies	First cycle	First cycle
Mode of study and duration (in years)	Full-time (3 years), part-time (4 years)	Full-time (3 years), part-time (4 years)
Credit volume	180	180
Qualification degree and (or) professional qualification	Professional Bachelor of Engineering Sciences	Professional Bachelor of Engineering Sciences
Language of instruction	Lithuanian	Lithuanian
Minimum education required	Secondary education	Secondary education
Registration date of the study programme	15-05-2017	09-06-2017

 $^{^{*}}$ if there are \emph{joint} / $\emph{two-fields}$ / $\emph{interdisciplinary}$ 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. EXPERT PANEL	4
1.3. GENERAL INFORMATION	5
1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN	THE HEI 5
II. GENERAL ASSESSMENT	6
III. STUDY FIELD ANALYSIS	7
3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM	7
3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES	12
3.3. STUDENT ADMISSION AND SUPPORT	15
3.4. TEACHING AND LEARNING, STUDENT PERFORMANCE AND GRADUATE EMPLOYMENT	19
3.5. TEACHING STAFF	24
3.6. LEARNING FACILITIES AND RESOURCES	26
3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION	30
IV. EXAMPLES OF EXCELLENCE	34
V. RECOMMENDATIONS*	35
VI. SUMMARY	37

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 the 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) site visit of the expert panel to the higher education institution; 3) production of the external evaluation report (EER) by the expert panel and its publication; 4) follow-up activities.

On the basis of this 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 then the study field is not accredited.

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

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

1.2. EXPERT PANEL

The expert panel was assigned according to the Experts Selection Procedure (hereinafter referred to as the Procedure) as approved by the Director of Centre for Quality Assessment in Higher Education on 31 December 2019 Order No. V-149. The site visit to the HEI was conducted virtually by the panel on19th November, 2021.

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Professor Dr. Alfredo Soeiro, professor at Porto University (Portugal);

Professor Dr. Marija Malenkovska Todorova, professor at University "St.Kliment Ohridski" – Bitola (North Macedonia);

Associate Prof. Dr. Ernesta Liniauskienė, Assoc. Prof. at Kaunas Forestry and Engineering University of Applied Sciences (Lithuania)

Dr. Mindaugas Gikys, *Director of JSC "AIF.LT" (Lithuania);*

Ms. Diana Malkova, student of International Business Studies at Vilnius University of Applied Sciences (Lithuania).

1.3. GENERAL INFORMATION

The documentation submitted by the HEI follows the outline recommended by SKVC. Along with the self-evaluation report and annexes, no additional documents have been provided by the HEI before, during and/or after the site visit.

1.4. BACKGROUND OF THE STUDY FIELD/STUDY FIELD POSITION/STATUS AND SIGNIFICANCE IN THE HEI

Panevėžio kolegija (hereafter – college) is a state higher educational institution established in 2002 by the Resolution of the Government of the Republic of Lithuania. It is a legal entity acting as a public institution. The college offers first-cycle study programmes conferring a professional bachelor degree, non-formal education programmes and extensive applied research and experimental development activities.

On 1 January 2021, twenty-three accredited college study programmes were registered in the Register of Studies, Training programmes and Qualifications, distributed in seven study field groups. At the beginning of 2021, 1324 students studied at the college, with 181 staff members, including 116 teachers. Approximately 45 % of the college students' study in state-funded places.

The college consists of three faculties; the Faculty of Biomedical Sciences, the Faculty of Social Sciences and the Faculty of Technology Sciences. Studies in the field of civil engineering are held in the Faculty of Technology Sciences. On 1 January 2021, 337 students studied at the faculty, including 145 students in the civil engineering study field. There are five study field programme committees at the faculty who coordinate and supervise the study field programmes. The Chairman of the Committee is subordinated to the Dean of the Faculty.

Two study programmes are offered in the civil engineering study field named *Construction* (since 2003) and *Road Engineering* (since 2017). The *Construction* study programme is carried out in full-time and part-time forms, while *Road Engineering* is offered as a part-time programme. The content of the programmes and the learning outcomes of the study programmes have been periodically reviewed taking into account the changing needs of the construction sector. The college is a member of the Lithuanian Builders Association and the Association *Lietuvos Keliai* (Lithuanian Roads). The faculty maintains close contacts, and cooperates constructively, with many companies in the construction sector of the Panevėžys region.

II. GENERAL ASSESSMENT

Civil Engineering study field and first cycle at Panevėžio kolegija is given **positive** evaluation.

Study field and cycle assessment in points by evaluation areas

No.	Evaluation Area	Evaluation of an Area in points*
1.	Intended and achieved learning outcomes and curriculum	3
2.	Links between science (art) and studies	3
3.	Student admission and support	3
4.	Teaching and learning, student performance and graduate employment	3
5.	Teaching staff	3
6.	Learning facilities and resources	3
7.	Study quality management and public information	3
	Total:	21

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

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

^{3 (}good) - the field is being developed systematically, has distinctive features;

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

^{5 (}excellent) - the field is exceptionally good in the national and international context/environment.

STUDY FIELD ANALYSIS

3.1. INTENDED AND ACHIEVED LEARNING OUTCOMES AND CURRICULUM

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

The goals of the study programmes comply with requirements from construction stakeholders taking into account the HEI cooperation with construction and professional associations in Lithuania. According to the Self-Evaluation Report (hereafter - SER) page 4, specialists are trained and educated in *Construction* and in *Road Engineering* study programmes of the college. It was noted that some teachers are members of the Lithuanian Union of Construction Engineers. The college has joined activities with the Association of Lithuanian Roads and the Lithuanian Builders Association. According to the SER the outcomes of the study programmes are influenced by these connections and by involvement with professional associations, with government orientations for the Construction sector, with the Construction Engineering Study Field Programme Committee and with business practitioners.

(2) Expert judgement/indicator analysis

The interviews revealed that cooperation exists between the college administration and related labour market representatives namely alumni and construction companies. That conclusion can also be obtained from the topics of the final theses with applied related topics and joint supervision with members from construction companies. It was also noted that there is a lack of involvement in European academic and professional related associations.

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

According to the SER the programme outcomes of both study programmes are consistent with the mission of the college to conduct higher education studies based on scientific knowledge and practice, providing students with modern competencies. According to the SER this consistency is in accordance with the College Operational Strategy and Strategic Action Plan.

The activities are planned for teachers and students to link the teaching and learning actions with the applied research typical of a higher education institution with short cycles of studies according to the Director's Order of 12 September 2019.

There is renovation of discipline modules taking into account the professional qualification requirements at national and regional levels. The study field programme committee is in charge of ensuring the conformity required between the college and the study programmes.

(2) Expert judgement/indicator analysis

The analysis of the SER and related documents highlight a list of disciplines that are consistent with the programmes intended outcomes. According to the interviews and surveys of students and of employers, they reveal suitability between the expected performances in real life situations leading to positive indicators of adaptation to market requirements.

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

(1) Factual situation

The cycle study programmes in Construction comprises six semesters for full-time students, and in Road Engineering comprises eight semesters for part time students (annex II pages 46-49). Both options have semesters with five disciplines each but with different weekly workloads. The total number of credits in both options is 180 from the ECTS framework. According to the SER, programmes of the study cycles comply with the *Law on Higher Education and Studies* of the Republic of Lithuania, the *Description of Lithuanian Cycles of Studies, the Description of Lithuanian Qualifications Framework, the Quality Assurance Guidelines of the European Higher Education Area, the Professional Standard of the Construction Sector* and the *Description of General Requirements for the Execution of Studies* according to the SER (page 5). These also comply with the description of the field of civil engineering of the Minister of Education, Science and Sport. Comments and suggestions from specialists and from employers were also considered in the definition of the study programme. In Table 1 of the SER, the compliance of both study programmes with legal requirements in terms of credits and percentages of training and other related indicators is shown through a comparison of programmes data of legal requirements.

(2) Expert judgement/indicator analysis

The SER and annexes do not include the concrete proofs of the stated compliances like, for example, of programme outcomes with the descriptors of level 6 of the Lithuanian Qualification Framework. Although it is not a legal requirement it was noted during the site visit virtual meetings and with the consultation of the SER and annexes, that the programmes outcomes did not take into account any European quality model of related engineering education frameworks.

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

The SER presents the process planned to establish consistency between the learning outcomes of each module, the teaching and learning modes and assessment methods in Picture 1 called Consistency of the study programme learning outcomes, subject study learning outcomes, teaching/learning and assessment methods. The process presented is based on the hierarchy between the levels of programme outcomes leading to module learning outcomes and to the respective teaching/learning/assessment methods. According to the SER, these dependencies between the different levels of the process are based on the teachers experience and competences, on internal procedures and requirements for the implementation of studies. In the SER it is mentioned that study methods are selected to help to achieve outcomes of a particular study subject. It is not presented what are the pedagogical criteria used for the selection and the SER states that it is based on specificity of subject, work of the lecturer, respective experience and personal didactic abilities. According to the SER, the same circumstantial properties are used concerning the choice of assessment methods.

(2) Expert judgement/indicator analysis

The SER and site visit virtual meetings did not clarify how the transitions between the different levels (phases) were established in terms of any common pedagogical or education theory like the constructive alignment model between learning outcomes and assessment methods. A similar conclusion was made in terms of the definition of learning outcomes of course units and teaching and respective teaching/learning methods.

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

According to the SER page 8, it is planned that competences of students are acquired through a constructivist approach where competences are divided in blocks for each module or discipline and accumulated throughout the programme completion. Students participate in the reflection about the acquisition of the planned competences providing feedback for teachers and to the study programme committee. According to the SER and annexes, attitudes, reflecting autonomy and responsibility of graduates, are expected to be developed in several modules without dedicated study modules/subjects. A student survey in 2021, carried out by the study programme committee, produced recommendations about the relevance of distance learning periods during the pandemic era. Alumni also provide feedback to the study programme committee according to the SER. According to the SER, some activities in the Applied Research area were designed to provide lifelong learning competencies to graduates.

(2) Expert judgement/indicator analysis

From the site visit interviews it was noted that there is interaction between teachers and students derived from their involvement in tasks demanding the evidence of competences in terms of knowledge, skills and attitudes. As mentioned in section 3.1.4 of the SER, the lack of indication of types of assessment for each of the competencies did not provide consistency evidence in the development of the different types of competencies and programme subjects/modules design. It was deducted from the virtual meetings with alumni and employers that graduate competencies comply with expected programme 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

According to the SER, annexes and site visit virtual meetings, it was noted that students can choose the respective internships and, consequently, the topic of their final thesis. During the cycle of studies, students can choose some subjects from general studies (2) and from the set of disciplines of the programs (4).

(2) Expert judgement/indicator analysis

Taking into account the possibility that students have to choose the topic of the final thesis and the company to realise the internship, it is adequate to consider that each student can adjust the professionalization part of studies to respective inclinations of deepening qualifications in a subject of interest. The 13% of the *all subjects* in the study programme for optional studies is also a support to the personalisation of their programmes of study for graduates.

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

(1) Factual situation

According to the SER, the final project is considered a demonstration of the achievement level of the programme outcomes. The College has a Description of the Procedure for Preparation and Defence of Final Thesis and a document about the methodological requirements for the preparation of the final project. Both documents support the compliance of the final theses with the College study cycle requirements. According to Annex 3, the titles of final theses are related with concrete execution of works either in *Construction* or in *Road engineering*. These may include applied research as prepared in the previous semester of that of final project habilitating students to obtain training and to contribute to the progress of the topics addressed in the theses. According to the SER, there is an option to include experimental work in the final projects allowing graduates to exercise their research competencies. Students are assessed by a supervisor and by a qualification commission with five members. These orientations at two levels may provide sufficient support for a useful thesis. Defence of the final thesis is public and regulated by the Qualification Commission.

(2) Expert judgement/indicator analysis

The relationship between the faculty supervisor and the companies in terms of responsibility and of sharing the supervision of the thesis is not detailed. The system, based on established procedure and rules, for definition of the thesis study plan execution and assessment appears to be robust and consistent. The titles of theses reflect a professional trend leading towards application of techniques and of knowledge. The cooperation with professional experts and with companies may lead to assessment and tuning of the competencies delivered by the study programmes.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Close cooperation with stakeholders and with associations in the programme areas.
- 2. Incentives for students to make self-reflections about competences acquired.
- 3. Established procedures to define learning outcomes for each module.
- 4. Final theses topics and elaboration with involvement of companies and of students.
- 5. Programme oriented versus professionalization of graduates.
- 6. Surveys of alumni and of companies of the study programmes about the updating of competencies.
- 7. Updating of modules as a function of developments like sustainability.

(2) Weaknesses:

- 1. Lack of involvement with European academic and professional quality engineering education models and labels.
- 2. Choice of assessment methods not linked with any common pedagogical or educational model.
- 3. Construction safety does not have a significant role in the study programmes.
- 4. Quality indicators of the study programmes and related results could be public.
- 5. Establishment of a permanent commission with stakeholders, alumni and companies to observe the need for programme updates.
- 6. List of programmes learning outcomes are not grouped in terms of the Lithuanian and European Qualification Frameworks that has descriptors classified as Knowledge, Skills and Attitudes.
- 7. International mobility of graduates may be hindered due to the lack of involvement with engineering international professional organisations.

3.2. LINKS BETWEEN SCIENCE (ART) AND STUDIES

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

Applied research is conducted in accordance with the Lithuanian Law on Science and Studies, with the Regulation on Research and Experimental Development Activities of higher education institutions, with the Lithuanian Regulation on the Annual Evaluation of College Research, Experimental Development and Artistic Activities, with the operational strategy and strategic action plan of the higher education Institution.

The outcomes of teacher's research and development conducted by the college are grouped into the following subgroups: scientific papers, customised project activities, other commissioned project activities (monitoring, analysis, and research study), provision of additional competencies, qualification improvement, seminars, tutorials and other educational activities.

The college is currently involved, together with partners from higher education institutions in Turkey, Sweden, Portugal and Denmark, in the ERASMUS + project *Power Up My House*, the aim of which is to increase the efficiency of solar photovoltaic applications taking into account the climatic conditions of the region. Some information of the methodological material of this project will be used in the civil engineering study field programmes.

Moreover, during the period under analysis, teachers in the field of construction engineering studies also carried out the international project *Development of Interactive and Animated Drawing Teaching Tools*. Programme teachers also participated in national and international conferences, read reports, and published articles in scientific journals. Teachers on the *Construction* programme also conducted customised applied research studies. For example, the teachers of the study programme published these scientific articles: *Study on linear wall-foundation thermal bridge efficiency in low-energy buildings, Problems with the installation of smart metering systems in the context of employee competencies, Study on linear thermal bridge efficiency of roof parapet in A++ class industrial buildings, Residential house window structures thermal property research using infrared radiation method, Assessment of skid resistance of road pavements, and others.*

The 12 September 2019 Order of the Director of the College further promotes research and development activities within the college by approving teams of researchers and the directions for their research.

(2) Expert judgement/indicator analysis

According to the current situation in the college, there are links between science (art) and study activities. The SER highlighted the following in relation to the teachers of the civil engineering field programmes:

- Five scientific articles published by the teachers;
- The teachers are participating in the local and international conferences and seminars;
- Participation of teachers in research activities and in private/international projects.

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

(1) Factual situation

The college regularly reviews the content of study programmes, taking into account the latest scientific developments in the field of civil engineering.

Over the last three years, the *Construction* and *Road Engineering* study programmes have been reviewed twice. The latest amendments to the study programme were approved by the resolution of the Academic Council on 29 April 2020. These changes were initiated by the acquisition of the new BIM design equipment, employers' comments and their proposals. The content of the study programme has been supplemented by topics relevant to the development of digital construction 4.0 (e.g. Basics of Static Information Modelling, Automated Design and BIM, etc.) and this enables trained construction and road engineering specialists to acquire competencies relevant to the company's needs of the Panevėžys region.

The addition of the study content is regularly discussed with employers and scientists of the college, some cooperation agreements have already been signed. For example, cooperation agreements have already been signed between the college and Kaunas University of Technology. Students and teachers can use the Kaunas University of Technology innovative laboratory equipment for scientific studies and laboratory work.

(2) Expert judgement/indicator analysis

The college has links between the content of studies and the latest developments in civil engineering science. The main indicators provided in the SER report are:

- the college has an interest in the real themes for civil engineering science: linear wall-foundation thermal bridge efficiency in low-energy buildings, linear thermal bridge efficiency of roof parapet in A++ class industrial buildings, residential house window structures thermal property research using infrared radiation and others;
- The newest themes for civil engineering science are involved in the teaching materials;
- There is strong cooperation with Kaunas University of Technology with opportunities to use their modern laboratories and scientific databases.

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

Students are encouraged to participate in scientific and project work, to take an interest in scientific progress and the possibilities of applying technological innovations.

Students of both programmes of the civil engineering study field participate in the yearly International conference *Trends in science and studies in the context of globalization (SCEDU)*, organised by the college and participate in the activities of the college's *Student Scientific Society*.

Every year, students of the civil engineering study field present their research works in the *Roots of science* – the section of engineering and informatics sciences of the Student Research Conference. The college publishes a periodic collection of articles of the Student Research Conference *Roots of science*, which publishes the best student conference papers. During the period under evaluation, around 11% of all students of the field programmes became involved in scientific development, participated in conferences and/or produced scientific publications. In order to encourage students' involvement in scientific development, authors of the best articles are awarded by the social partners.

(2) Expert judgement/indicator analysis

There are suitable conditions for students to be involved in scientific activities. The SER highlights some of the ways students are encouraged to be involved in scientific activities as follows:

- Annual scientific-practical conferences for students are organised by the college;
- Students prepare conference papers and publications;
- Students participate in scientific development;
- The activities of students in scientific development are awarded by social partners.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. The scientific articles published by the teachers.
- 2. The teachers participate in the local and international conferences and seminars.
- 3. The college organises an annual scientific-practical conference for students.
- 4. The students prepare the papers and publications and participate in scientific development.
- 5. The activities of students in scientific development are awarded by the social partners.
- 6. The college is interested in the actual themes of civil engineering science.
- 7. The newest themes of civil engineering science are used in the teaching materials.

8. The college has strong links with Kaunas University of Technology with opportunities to use the modern laboratories and scientific databases.

(2) Weaknesses:

- 1. Low numbers of teachers participate at international conferences and publish scientific papers.
- 2. Low numbers of students participate at the International level (including Erasmus).
- 3. Low level of cooperation between the social partners and the college.

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

Admission of students to the *Construction* and *Road Engineering* programmes is organized in accordance with the *Description of the Procedure for Ranking the Best Secondary Education School Leavers* approved by the Minister of Education, Science and Sport of the Republic of Lithuania and the conditions for admission of students to college studies. The admission procedure is established in the rules for admission of students to college and published on the college website. Students are admitted to state funded and state non-funded places.

The study programmes in the civil engineering field is accepted by persons having obtained secondary education and fulfilling the foreseen conditions according to the competition procedure. The entrance competitive score is calculated from four subjects of the State Examination (mathematics, physics, Lithuanian language and literature and another subject). The college has set a minimum competitive score below which entrants are unable to apply for college study programmes which is currently 4.3. Additional points may be added to the competitive score in accordance with the college policies.

The number of students in Lithuanian higher education institutions is expected to decrease in the near future due to population statistics. The number of first year students in the civil engineering field has declined in recent years and this is expected to continue to 2025 at least. The number of students who signed agreements to enter the *Construction* programme on a full-time basis is 38 in the 2020-2021 academic year yet almost 12% of students did not complete year one that year. There are two main reasons for terminating studies: lack of motivation for studies and emigration.

The construction Study Programme Committee is considering integrating the *Road Engineering* programme into the *Construction* programme as a specialisation.

(2) Expert judgement/indicator analysis

Admission to first year of the *Construction* and *Road Engineering* programmes is controlled by the regulations set out in the national Lithuanian Ministry of Education, Science and Sport and criteria set by the college. Admission to later years of the programme is based on the recognition of prior learning. The number of students admitted to the programme has been reducing in line with national norms for engineering and construction programmes in Lithuania but is high compared to other higher education institutions in Lithuania due to the number and size of the construction organisations in the region.

The panel is of the opinion that promotion of the *Construction* and *Road Engineering* programmes to prospective students could be enhanced by promoting construction careers to students with the assistance of the social partners and increasing the use of social media platforms to promote construction careers and hence the civil engineering field study programmes.

The last intake of the *Road Engineering* programme was in the 2018-2019 academic year. The Panel notes that the *Construction* and *Road Engineering* programmes are likely to merge in the future and more information would be needed on the proposed new programme for the panel to comment on it.

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

In the case of partial studies, the outcomes of previous learning are assessed and informal competences are recognised on the basis of college procedures. Acquired competencies are recognised as learning outcomes of the study programme. During the period under evaluation, the faculty granted 44 requests for the inclusion of partial or previous study results for the civil engineering field programmes. The most commonly credited subjects were Information Technology, Applied Mathematics, Applied Physics, Sustainable Environment and Human Safety.

Students, who have acquired qualifications (at least level 4) in the formal education system according to *the Lithuanian Qualifications Framework* (2019), have the right to apply to the Dean of the faculty for the recognition of the competences acquired through formal education. During the period under evaluation, the faculty granted 35 requests for the recognition of formal competences for the civil engineering study field programmes.

Applicants seeking the outcomes of the study programmes for the assessment and recognition of the competences acquired in an informal and self-learning manner are advised by faculty staff and competency portfolios are prepared by the applicants which are evaluated by the study competence assessment board. During the period under evaluation, the faculty recognised 22 persons for competence acquired in an informal and self-learning manner.

(2) Expert judgement/indicator analysis

The Study Programme Committee evaluates the recognition of formal and non-formal education and experience of prospective students according to college policies and procedures. From the number of requests approved for recognition of formal and non-formal learning, and discussions with faculty staff, the panel confirmed that student's prior learning and experiential learning are recognised for the civil engineering study field programmes.

3.3.3. Evaluation of conditions for ensuring academic mobility of students

(1) Factual situation

Students are provided with information and support systems to encourage them to participate in higher education programmes in foreign countries. The college has 23 Erasmus bilateral partnership exchange agreements with foreign higher education institutions where students of the civil engineering study field programmes can study.

In 2018 and 2019, students of the Construction and Road Engineering programmes did not study at foreign higher education institutions under the Erasmus+ Exchange Programme but two students completed internships in Norwegian construction companies. This represents only 1.72% of all the students studying in the programme. During the period under analysis, 2 Turkish students came to the college under Erasmus+ for partial studies in the Construction study programme.

(2) Expert judgement/indicator analysis

Opportunities to participate in academic mobility for a semester or for a practical placement element of the programme is available to students where the credits and work experience achieved in the foreign higher education institution is recognised when students return to the college. The college advertises the Erasmus+ opportunities and supports students with a coordinator within the college.

The panel notes that the number of Lithuanian students opting to carry out their practical placement or part-time studies abroad is very low. Student surveys have indicated that the main reasons for student reluctance to study in foreign higher education institutions are financial, language difficulties, confidence and part-time work commitments. However, students have also indicated that they have received sufficient information on the opportunities offered to study abroad. The panel also noted that the Lithuanian language is a barrier to inward student mobility.

The panel recommends that the academic mobility of students be encouraged further with an emphasis on the benefits of mobility promoted to students and the sharing of student experiences with other students as a promotional tool. Additional English language support may be necessary.

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

The college provides academic support and scholarships to students. All academic information is published on the college web-site in the section *for Students*. Each student receives relevant information personally in an email account administered by the College. Each academic group is appointed a group tutor. There is flexibility for attendance for classes and examinations for students who are combining work and studies.

The best-educated students in state-funded studies receive a scholarship. Scholarships are awarded in accordance with the College policy. In 2018, scholarships were awarded to 22 Construction students, 16 scholarships in 2019, and 10 scholarships in 2020. Scholarships range from 20 to 70 Euros. Five students who were actively involved in college activities were encouraged by one-off scholarships.

The Centre for Studies, Career and Occupation ensures that each student receives financial support from the State Study Fund (social scholarships, loans, tuition fee reimbursement, etc.). All students are provided with the opportunity to live in the college dormitory. The college provides psychological and personal support to students.

(2) Expert judgement/indicator analysis

The number of students who received scholarships and other financial support from the Lithuanian state and college is high. The panel is impressed with the range of academic and financial supports available for students and recommends that this be further extended to supporting students to get involved further in presenting academic work at conferences.

3.3.5 Evaluation of the sufficiency of study information and student counselling

(1) Factual situation

Information about the programme is provided by the Department, Faculty and College. Upon signing the study agreement, each student receives the student memo issued by the college, which briefly provides all the information relevant to students (addresses of the faculties, contacts, campus map, scheduling principles, services provided to students, etc.). Induction is organised for first year students. Information is shared with students in a variety of ways and through the college's website.

(2) Expert judgement/indicator analysis

Students are provided with appropriate programme information by the college and the Faculty commencing with induction in first year. The use of face-to-face interactions with faculty staff as well as electronic information tools are utilised to provide students with up to date information at appropriate times. Discussions with staff and students provided evidence to the panel that the study information provided is sufficient. The students have free

psychological counselling provided by the college and this information is available on the website.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Academic, financial, social, psychological, personal and other support for students are available and are communicated to students.
- 2. There is a clear procedure for crediting partial study learning outcomes and recognising previously acquired competencies as study learning outcomes, and its successful application in the civil engineering study field programmes.
- 3. The criteria and procedures to admit students to the programmes are clearly defined.

(2) Weaknesses:

- 1. Student numbers attending the programme are decreasing so an emphasis on marketing of the programmes to second level students is needed. The active engagement with social partners in this endeavour could enhance the outcome.
- 2. Further encourage and support the mobility of students and teachers.

3.4. TEACHING AND LEARNING, 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

Forms and methods of studies, teaching/learning and student progress assessment methods are regulated by the Panevėžys College Study Regulations (2021). There are two types of studies full-time and part-time. The academic year consists of two semesters (each semester is organized in 20 weeks, of which 1–4 weeks is the examination session).

Students and teachers have free access to study information resources (subscription databases, electronic book platforms, etc.). The students can find the teaching methods in the study subject description that the teacher provides at the beginning of the module. Following the recommendations of the team from previous evaluation, the assessment of the study learning outcomes is indicated in the Description of the Procedure for the Assessment of Student Progress of the Panevėžys College (2021). Additionally, the student progress is monitored as written in the descriptions of the modules (subjects) of the study programme, which is presented in Moodle.

Cumulative assessment of the learning outcomes is applied and consists of the sum of the assessments of the interim results. For distance oral exams recorded videoconferencing is used and the distance written exam is realised using the tools of the virtual learning environment.

The institution motivates its students by presenting employer prizes, one-off incentive grants, director's letters of thanks and memorable gifts. The student's independent work is encouraged and regulated by the Description of the Procedure for Organising Student Independent Work (2020). The teacher is responsible for the forms of independent work (semester paper, practice report, drawing, report, seminar, project, and essay), resources, assignments and assessment criteria. The college senior students may study at the same time under an adapted supplementary study programme which enable them an access to second cycle college studies (The programme of additional studies adapted for college graduates has been developed in accordance with the cooperation agreement between Kaunas University of Technology and Panevėžio kolegija).

When it comes to the studying forms, their opinion is that working remotely does not make a big difference as the available tools provide good working conditions and the students can benefit from them. The afore-mentioned was confirmed by the students.

In discussions with the teaching staff, they emphasised that the majority of students (since they are employed) regularly work with their professors on an individual basis.

The topic of the final project is chosen by internship, as a suggestion from the college research groups or as a suggestion by the social partners.

(2) Expert judgement/indicator analysis

The process of teaching and learning is organised according to the *Panevėžys College Study Regulations (2021)*. The cumulative assessment system is a comprehensive one using various aspects and ways of learning and accomplishments. Evidence of the success of the motivation procedures is obvious. The adapted supplementary study programme allows access to university second cycle study programmes.

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

(1) Factual situation

The Institution provides additional resources to help socially vulnerable groups and students with special needs to access the study process. (Department of the Disabled under the Ministry of Social Security and Labour, and the European funds, are two sources for support, according to Lithuanian legal acts).

These students are also supported by the Centre for Studies, Career and Occupation. The various forms of support are publicised on the website (https://panko/lt/category/paramastudentmas/). Studying is flexible and adapted to their needs, (programmes for students who

are visual impaired). Additionally, there are resources for students with mobility difficulties, (stationary lift and two mobile ladders, several computer tables and chairs adapted to their needs). The above-mentioned conditions were confirmed during the meeting with students.

(2) Expert judgement/indicator analysis

There is a systematic and legal based approach in order for socially vulnerable groups and students with special needs to benefit to their full potential from their college education.

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

There is monitoring of the student's study progress realised through meetings at the Dean's office (to analyse the outcomes of the semester), mandatory surveys for students about the particular subject and the study process as a whole, surveys at the end of the autumn semester for the adaptation of first year students (initial level of knowledge and competencies, various supports) and feedback on learning outcomes provided by the teacher (individually or to a groups of students, during classes or by email). There is an opportunity for a personal tutorial, characteristic of the direct or remote synchronous contacts.

Some elements of the study process are flexible, which means that the teacher can make a decision on adjusting the subject content or teaching methods in line with the students' capacity. The results of student assessment, (available only to the student and the employees responsible for managing the study learning outcomes), are recorded in the AKADIS information system. Teacher's comments are visible only to the teacher and student.

(2) Expert judgement/indicator analysis

Monitoring student's study progress is a continuous process consisting of an analysis of the whole study carried out by the college management and staff, students' surveys, tutorial for each student or for the group of students, adaptation of subject content and teaching methods to the students' capacity and use of the electronic system for recording the assessment results.

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

(1) Factual situation

The previous evaluation report indicates that "It is advisable to build stronger relationships between students and teachers, for example, to promote the activities of the Alumni Club, try to implement student suggestions by improving the study process". (Self-Evaluation Report, May 2021). Therefore, as a result of participation in the national project "Development and implementation of career monitoring models for higher education students and career monitoring models, improvement of the qualifications of vocational guidance professionals working with students, development of tools for them", career management services are currently provided in the form of lectures and tutorials. The activities of the project are for

students and their career development, for which they get advice from the Centre for Studies, Career and Employment. Additionally, professionally trained specialists' teach during the project.

Strengthening the relationships between students and teaching staff is carried out through various measures, such as recognising the students achievements during the study process ("annual nomination for the most successful graduate" - Self-Evaluation Report, May 2021), communion in educational events and opportunities for students to make public suggestions regarding their studies. Managing and monitoring of the student's career is carried out through the Career Management Information System (CMIS), which provides data only for graduates who work in Lithuania.

Analyses of data related to the number of graduates employed in the country according to the acquired profession (Table 9 – SER), leads to the conclusion that the mentioned indicator varies over the analysed period of three years (63% in 2017, 42% of graduates in 2018 and 72% of graduates in 2019). The authors of the report give an additional explanation that the rest of graduates are employed in foreign companies, as well as a small number enrol in postgraduate studies. On the other side, it can be said that college and college graduates are employed relatively quickly after graduation and their employment exceeds the overall level of the employment in Lithuania. (Government Strategic Analysis Centre).

In addition, the results of the civil engineering field graduates survey (2019/2020 academic year) on the relevance of their competences to the labour market, indicates that 93% of the professional knowledge and competences acquired, and 87% of practical professional skills were in line with real work environment needs. This opinion was confirmed during the meeting with alumni, employers and social partners.

(2) Expert judgement/indicator analysis

Monitoring of graduates' employability and their career should be upgraded since the data mostly originates from the mentioned project and sources outside the college, giving uncertain and unclear data. There is a need to establish regular procedures in order to get the continuous evaluation of this indicator.

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

(1) Factual situation

Implementation of college policies related to academic integrity, tolerance and non-discrimination are based on legal acts and college procedures such as the *Fair Higher School Declaration, Code of Academic Ethics of Panevėžys College (2018), Description of the Procedure for the Prevention of Plagiarism of Panevėžys College (2018), Panevėžys College Study Regulation 2021, Description of the Measures for Implementing and Monitoring the Principles of the Implementation and Enforcement of the Equal Opportunity Policy (2018).*

(2) Expert judgement/indicator analysis

Ensuring academic integrity, tolerance and non-discrimination is realised according to the institution's procedures.

3.4.6. 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

Regulations of Appeals of Panevėžys College (2017) is the legal act which regulates the procedure for the submission and examination of appeals and complaints regarding the study process.

(2) Expert judgement/indicator analysis

The students have the right to appeal if they are unsure about the implementation of the assessment procedure by using the *Regulations of Appeals of Panevėžys College (2017).*

Namely, in terms of the procedures for the development of modules/subjects, as well as possible violations in assessment of the semester module/subject/final project, students have the right to submit appeals. No cases or figures regarding the number of appeals and complaints or how they were resolved are presented in the SER. The authors of the SER emphasise that there were no appeals in the civil engineering study field programmes since the previous evaluation.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. The teaching and learning process is adequately organised and delivered enabling students to achieve the intended learning outcomes while at the same time taking into account their needs.
- 2. The institution provides good conditions ensuring socially vulnerable groups and students with special needs can complete their studies.
- 3. There is a systematic monitoring of student's study progress and feedback to students supported by different college procedures.
- 4. The implementation of policies to ensure academic integrity, tolerance and non-discrimination is in place and well regulated.
- 5. The application of procedures for the submission and examination of appeals and complaints regarding the study process within the field studies is effective.

(2) Weaknesses:

1. The employability of graduates and graduate career monitoring in the study field is not tracked sufficiently. There is a weak institutional system.

3.5. TEACHING STAFF

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

3.5.1. Evaluation of the adequacy of the number, qualification and competence (scientific, didactic, and professional) of teaching staff within a field study programme(s) at the HEI in order to achieve the learning outcomes

(1) Factual situation

There are 16 teachers delivering the programmes. 13 teachers work in the college for at least half of the full-time position and for at least 3 years.

The new pedagogical personnel are recruited taking into account the requirements for the execution of the study field programmes and the competition conditions laid down in the *Description of the Procedure for Certification and Organisation of Competitions in Panevėžys* (2020). The teachers are recruited in accordance with the requirements of the Law on Science and Studies of the Republic of Lithuania, the *Description of General Study Requirements* (2016) and the *Description of the Group of Engineering Studies* (2015).

The new teachers are usually admitted for a fixed period. During the last three years, in accordance with the competition procedure, some of the civil engineering field teachers were accepted for a five-year term. One of the teachers is studying for a PhD. All teachers have a qualification degree equal to a master's degree.

(2) Expert judgement/indicator analysis

The teaching staff has sufficient and appropriate qualifications and competences. The Self-Evaluation Report highlighted the following in relation to teacher's qualifications and competencies:

- the number of teaching staff is sufficient to deliver the programmes;
- the teaching staff publish scientific articles;
- the teaching staff have scientific articles and the appropriate teaching background;
- the 4 main teachers are appointed to the primary positions for 5 years.

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

One of the priorities of the college is development of international studies and science. The college teachers are encouraged to participate in international mobility visits, gain international experience and review the content of the modules/subjects taught and be familiar with advanced teaching methods.

The civil engineering study field teachers have the opportunity to engage in international mobility under the Erasmus + programme and/or other programmes. During the last three years 13 teachers had left Lithuania to deliver lectures to higher education institutions in foreign countries.

The college in cooperation with others HEI implemented the international strategic partnership project *SMARTEL* (*Smart Metering and Home Automation Technologies Re-Training for Electricians*).

Foreign higher education institution teachers read the lectures for students, participate in conferences, share experience and discuss possible fields of cooperation. During the last few years, 8 foreign university teachers arrived in the college to deliver lectures.

(2) Expert judgement/indicator analysis

Sufficient teaching staff from the civil engineering study field engages with academic mobility to foreign higher education institutions. The SER indicates the following in relation to teacher mobility:

- The teachers are encouraged to improve their competencies;
- The teachers are participating in the Erasmus + exchange programme;
- The foreign teachers are involved in the delivery of programmes.

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

(1) Factual situation

The college staff is encouraged to improve their competences through participation in international mobility projects, internships in practical activities, seminars, courses and other qualification development events. Professional development events are funded by the college's revenue and various project funds. The average amount allocated is around €644 per full-time teaching position.

During the last several years the civil engineering study field teachers participated in various hardware and software information technology training.

During the last several years, strong attention was focused on the teacher's development of English language skills. For the development of didactic competences of teachers, the 40-hour seminar *Student- oriented didactics* was organized.

Five seminars were organised to improve the competences of the teachers in distance learning: Distance Learning Technologies, use of video material in the process of distance learning, Work in the Moodle environment, Zoom tool application and Development of tests in the Moodle environment. The programme teachers participated in the project Practice – guarantee of the quality of studies (project NO.09.3.1 ESFA- K-731-01-001).

(2) Expert judgement/indicator analysis

The teachers have the conditions to improve their competencies. The Self-Evaluation Report has highlighted the following in relation to teacher development of competencies:

- Professional development events are funded by college revenue and various project funds:
- Teachers participate in various training opportunities, including new hardware and software training;
- Teachers participate in English language courses;
- The college recommends that the study field teachers improve their practical competencies;
- The teachers develop their practical competencies in the local region companies.

Strengths and weaknesses of this evaluation area:

(1) Strengths

- 1. Professional development events are funded by college revenue and various project funds.
- 2. Teachers participate in various training events, including new hardware and software training.
- 3. The teachers together with the college administration plan the development of their competencies each year.
- 4. Teachers develop their practical competences in the local region companies.
- 5. The teachers are members of various professional associations.
- 6. Teachers participate in English language courses.
- 7. Foreign teachers are involved in cooperation with the college.
- 8. The teaching staff published scientific articles.

(2) Weaknesses:

- 1. The teaching staff is not involved in international associations.
- 2. The teachers have limited activity in international conferences outside of Lithuania.

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) Faculty Situation

The existing material and methodological base of the college (auditoriums, computer classes, laboratories, library, etc.) located at the address: Klaipeda str. 1, Klaipeda str. 3, and Laisves

sq. 23, (the total area of all premises is 9789.76 sq. m) in Panevėžys are used to carry out civil engineering field studies.

The SER states that there are streaming auditoriums with an average of 60 workplaces for teaching general and elective, as well as other subjects, and 45 workplaces in the auditorium. Auditoriums and laboratories are equipped with modern computer software (*Microsoft Office 365, Matlab, Autodesk Revit Tools 4 Revit (13 licenses), Robot Structural (13 licenses), FluidSim (1 network license), SOLIDWORKS EDU Edition (60 licenses AutoCAD, AutoCAD Civil 3D, ArcGIS).* The laboratories dedicated to the civil engineering study field programmes have an average of 14 to 16 workplaces. Some of the laboratory and practical work the students perform in the research laboratory of JSC "Panevėžio keliai" and in the laboratories of the Panevėžys Faculty of Technology and Business of Kaunas University of Technology (cooperation and service agreements have been signed).

One distance learning auditorium (14 computer workplaces) and 3 individual distance learning auditoriums are used for distance learning. Remote lectures are streamed using Zoom software (30 Zoom licenses, 300 participants per broadcast). The premises intended for the performance of studies are repaired, tidy and meet the requirements of hygiene norms.

In order to ensure the quality of studies for students with special needs, the college has purchased special equipment: a stationary lift, 2 mobile staircase climbers, several computer tables and chairs for students with reduced mobility; programmes to read Braille, 2 magnifiers for visually impaired students. An internship is intended to help a student gain the professional experience required for practical work (*Order No. V-1168 of the Minister of Education and Science of the Republic of Lithuania of 30 December 2016 "On the Approval of the Description of General Study Requirements"*).

The SER states that in the civil engineering field programmes professional internships will take place in companies whose activities are related to construction technology, design, and other construction engineering activities. The college has signed 23 cooperation agreements with companies that accept students for internships and 20 cooperation agreements on the organization of civil engineering internships.

The college has signed cooperation agreements with the following construction companies for the *Construction* programme:

- JSC "Panevėžio statybos trestas";
- JSC "Statinių projektavimo biuras";
- JSC "Panevėžio miestprojektas";
- JSC "Prorentus";
- ISC "Kasmonta";
- JSC "Ekobūstas";
- ISC "Kriautė";
- Panevėžys Centre of Vocational Education.

The college has signed cooperation agreements with the following construction companies for the *Road Engineering* programme:

- JSC "Panevėžio keliai";
- JSC "Panevėžio gatvės";
- PI "Panevėžio regiono keliai";
- PI "Lietuvos automobilių kelių direkcija".

The library of the college contains 135 titles and 676 publications dedicated to the field of civil engineering studies. The library also subscribes to electronic books from VGTU publishing house (145 titles) and KTU publishing house (76 titles). 64 titles of VGTU and 10 titles of KTU e-books are intended for the civil engineering students. Information about books in the library and new books are available in the library's electronic catalog, which is freely available, as well as in the college's virtual library.

Students and faculty have access to the College's international databases of full-text scholarly articles. Students and lecturers can also use the standards of the Lithuanian Department of Standardization required for studies in the library; open access sources and Lithuanian scientific periodicals on the Internet.

The college uses the virtual learning environment Moodle which contains learning materials, practical, independent and control tasks, tests, coursework (project) tasks, methodological instructions and exam material. The central library of the College (23 Laisvės Sq.) has 74 workplaces, 20 of which are computerized.

(2) Expert judgement/indicator analysis

The assessment which was based on the SER and the information received during the site visit virtual meetings have shown that the number of students in the groups is not large, and therefore, the number of classrooms and laboratories used for the civil engineering field studies is sufficient and the software available for these studies meets the needs of students and lecturers.

In the SER and during the site visit virtual meetings, the panel was not provided with detailed information on special equipment (*several computer desks and chairs; programmes for reading Braille*) adapted for students with special needs. For this reason, the evaluation panel considers that the amount of facilities and equipment for students with special needs is only satisfactory. The college has the opportunity to improve and adapt the information and physical environment for students with special needs by participating in the State Studies Foundation's project *Increasing the Accessibility of Studies*.

A tripartite agreement is prepared for the internship period (student-college-company), the organization of internships is regulated by the publicly available *Description of the Procedure for Organizing Practical Training at Panevėžys College*, 2020. Good conditions have been created for students to do professional internships, so it is very important that the cooperation agreements concluded with various companies in the Panevėžys region remain

valid. Methodological resources (textbooks, books, periodicals, databases) are appropriate, sufficient and available in various forms. The library's funds are updated annually. The library is fully computerized. It should be noted that for independent work students can use the online reading room in the library, which has long opening hours (from 8:00 to 20:00), thus enabling students to dive deeper into their studies after the lectures.

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

(1) Factual situation

The college funds for the acquisition and renewal of resources are allocated from three sources: funds from investment projects, funds allocated by the Government of the Republic of Lithuania and funds earned by the college.

The SER did not specify, but during the virtual visit it was clarified that investment projects are prepared periodically every 4 - 5 years, and therefore investments in the civil engineering field are systematically carried out. It was also noted that two projects: *Center for Energy Processes Studies and Innovation* and the *Establishment of the Center for Information Technology Studies and Innovation*, with a total value of 2.6 million Euros, were implemented.

More than 600 thousand Euros are allocated in the 2019-2020 academic year for the acquisition and renewal of the necessary resources in the civil engineering field (196 desktops, 27 laptops, 8 interactive whiteboards, 3D and multifunction printers, audio and video recording studio equipment, other hardware, an upgraded server etc.). During the conversation, it was also mentioned that the College's activity plan envisages 10 thousand Euros to meet current needs.

(2) Expert judgement/indicator analysis

After evaluation of the information provided in the SER and the information provided at the site visit virtual meetings, it can be concluded that the college has the resources to carry out studies developing the civil engineering field competencies. The recommendations made by the experts in the previous evaluation have been taken into account by the college and actions have been taken to implement them:

- It is recommended to purchase more literature in English for studies of the Construction programme. *Is being implemented*.
- It is recommended that the library raises necessary funds to acquire Eurocodes required for the structural / building design. *Implemented*.
- It is recommended that students' comments about cold auditoriums are taken into account and that appropriate actions are taken to ensure that the learning environment is appropriate for both students and the staff. It is planned and will be implemented in the near future.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Renewed laboratories, computerized workplaces, sufficient amount of hardware and software to meet the needs of students and teachers are used to implement the civil engineering study field programmes.
- 2. The college has signed cooperation agreements with the largest companies in the Panevėžys region, which provide an opportunity and conditions for the proper organization of internships and the use of the material base available to the social partners during internships.

(2) Weaknesses:

1. The college should enhance its conditions for students with special needs.

3.7. STUDY QUALITY MANAGEMENT AND PUBLIC INFORMATION

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

The quality assurance system for higher education is defined by the Manual of the Internal Study Quality Assurance System (2020), and the quality management system is certified in accordance with the requirements of the international standards ISO 9001:2015 and the Quality Assurance Standards and Guidelines for the European Higher Education Area (ESG 2015).

The main quality assurance body for the civil engineering study field programmes is the Faculty and the Study Programme Committee. The Faculty organizes the preparation of the study programme to be carried out, its monitoring, renewal and internal evaluation of the ongoing programmes. To ensure the quality of the study field programme the Study Programme Committee is organized and consists of five certified teachers, three social partners and a student's representative. The Study Programme Committee evaluates the relevance of the teacher's material submitted for the certification of the module to the outcomes of the study programme, subject topics and students' progress. The Chairperson of Study Programme Committee also analyses the data of student's surveys and presents the findings to the Dean.

The survey system has been updated and a new survey system is operating on the basis of the open source program *Lime Survey*.

To increase student's mobility indicators the financial support and academic/information assistance measures are implemented. Two groups of college teachers improve their English skills every year.

(2) Expert judgement/indicator analysis

Based on the information obtained during the site visit virtual meetings and provided by the SER, it can be determined that the internal quality assurance system operates well. The faculty and the civil engineering Study Programme Committee organizes, monitors and analyses the quality of the programmes.

From the previous experts' recommendations, the surveys started to be conducted electronically and cross-sectional analysis was implemented. Also, the program for the college teachers to improve communication skills in English is another strong point.

3.7.2. Evaluation of the effectiveness of the involvement of stakeholders (students and other stakeholders) in internal quality assurance

(1) Factual situation

The feedback from social partners is obtained from the annual surveys. Also, cooperation between the college and social partners is expressed in cooperation agreements, employers' work in the Study Programme Committee, organizing student internships, advising in the preparation of final theses, participating in the assessment of the study learning outcomes, etc. Whereas students have a chance to participate in student self-government, college governing bodies and the activities of the student scientific society.

The meetings regarding the further development of a study field are conducted not only in the College but also in companies like *Panevėžio keliai, Prorentus, ltd.* and *Panprojektas, ltd.*

(2) Expert judgement/indicator analysis

Regarding the factual situation in the college about involving stakeholders and social partners in study quality assurance it can be considered as sufficiently good. The college conducts the meetings and surveys to support the participation of social partners and students in the study programme quality assurance and development. Students are provided with the internships which will keep them informed of the needs of the labor market.

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

(1) Factual situation

All the information relating to quality assurance is published online on the college's website including as follows:

- Admission requirements;
- Assessment and progress reports on study programs;
- Qualification and career opportunities.

The general outcomes are discussed at various meetings and adjustments to the study process are implemented. For example, the implementation of part of the technological practice in a practical training center, provides the basis to meet the needs and expectations of employers.

(2) Expert judgement/indicator analysis

The collection, use and publication of information studies at college are satisfactory. The college's website has all the needed data regarding study programmes, objectives and expected learning outcomes, admission requirements, progress reports, etc. From the previous expert recommendations, the college provided the data of all study programmes through the website in Lithuanian and English.

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

(1) Factual situation

The college collects feedback by conducting surveys. The questionnaires are usually performed in the virtual environment and are available at: https://apklausos.panko.lt. The outcomes of the student surveys are also available online via the college website. As well, the implemented changes regarding students' observations and preferences from the surveys are also published online.

The general outcomes of the feedback are discussed at the various meetings and used for the self-analysis of the programmes. The adjustments of the study subjects, plans and other relevant information are made as a consequence of survey feedback. For example, the implementation of part of the technological practice in a sectoral building practical training Centre, the basis of which meets the requirements and expectations of employers, implemented changes regarding students' observations and preferences indicated in the survey which are made public (https://panko.It/2019/04/16/griztamasisrysysstudentams/).

The feedback is usually collected every semester. For example, in 2018, at least four surveys were conducted in the first semester and at least two surveys in the second semester. The average percentage of survey participants is 80%.

(2) Expert judgement/indicator analysis

Based on the information obtained during the site visit virtual meetings and provided by the Self-Evaluation Report 2021, it can be determined that surveys influence the decisions taken and the quality of studies. From the previous expert recommendations, the new LimeSurvey system was implemented. This system helps to produce most outcomes automatically to reduce the analyses required.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

- 1. Feedback to students regarding their impact on improving the study process.
- 2. Annual courses for college teachers to improve their skills in English.
- 3. Implementation of the new survey system *LimeSurvey*.

(2) Weaknesses:

- 1. To further encourage students to take part in international mobility.
- 2. To further improve the communication between social partners and students by holding events in the college.
- 3. To further promote the participation of stakeholders in the quality assurance process.

IV. EXAMPLES OF EXCELLENCE

None Found.

V. RECOMMENDATIONS*

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	 Group the programme learning outcomes in terms of the European Qualification Framework (Knowledge, Skills and Attitudes) and thus reflect how the programmes align with the European academic and professional engineering quality labels/models.
	 Link the assessment methods to a common pedagogical or educational model across the programmes in the civil engineering study field.
	3. Increase the emphasis on construction safety in the programmes.
	4. The quality indicators for both programmes and results should be made available to the public.
	5. Establish a permanent commission with stakeholders to consider the need for programme updates.
	6. The UN Sustainability Goals (including climate change and sustainability) should be a focus in both programmes.
Links between science (art) and studies	 Additional supports and further encouragement should be in place for students to participate in scientific-practical conferences.
Student admission and support	1. Student numbers attending the programmes are decreasing so an emphasis on marketing of both programmes to second level students is needed. The active engagement with social partners in this endeavour could enhance the outcome.
	2. Further encourage and support the mobility of students and teachers.
Teaching and learning, student performance and graduate employment	 Monitoring of graduates' employability and their career should be upgraded since the data mostly originates from the mentioned project and sources outside the college, giving uncertain and unclear data. There is a need to establish regular procedures in order to get the continuous evaluation of this indicator.

Teaching staff	 Teaching staff should be encouraged and supported to attend international conferences and publish scientific papers in international journals outside of Lithuania. Teaching staff should be encouraged to be members of international professional associations.
Learning facilities and resources	The college should enhance its conditions for students with special needs.
Study quality management and public information	To further improve the communication between social partners and students by holding events in the college.

^{*}If the study field is going to be given negative evaluation (non-accreditation) instead of RECOMMENDATIONS main **arguments for negative evaluation** (non-accreditation) must be provided together with a **list of "must do" actions** in order to assure that students admitted before study field's non-accreditation will gain knowledge and skills at least on minimum level.

VI. SUMMARY

Main positive and negative quality aspects of each evaluation area of the study field of Civil Engineering at Panevėžio kolegija:

Intended and Achieved Learning Outcomes and Curriculum

The main positive aspects are that the *Construction* and *Road engineering* programmes have a good balance between core and elective subjects which produces graduates with competencies and skills relevant to local, regional and national needs. The regular surveys of students, alumni and employers and feedback to them and the College's quality management system is appropriate. There is good cooperation between the College and the social partners for the final theses. The main weaknesses include the lack of involvement with European engineering quality educational or professional models/labels and that the construction safety and the UN Sustainability Goals (including sustainability and climate change) competencies are not sufficiently represented in the both programmes outcomes.

Links between Science (Art) and Studies

The main positive aspects are that teachers publish scientific articles and together with students cooperate in undertaking applied research and prepare papers and publications. This enables the newest themes in the civil engineering study field to be included in the teaching content of both programme's subjects. The main weaknesses are that teachers and students need to have greater participation in international conferences and publications outside of Lithuania and that the college needs to encourage greater collaboration with the social partners.

Student Admission and Support

The main positive aspects are that there are clearly defined criteria and procedures to admit students to the programmes as well as procedures for recognising formal and non-formal learning. The academic, financial, social, psychological, personal and other supports are available and are communicated to students. The main weaknesses are that there is a need to further encourage and support the mobility of students and teachers and that marketing of the programmes to secondary level students could be enhanced with additional employer support.

Teaching and Learning, Student Performance and Graduate Employment

The main positive aspects are that there is an established teaching and learning process that takes into account the individual student's needs, the teaching and learning process is adequately organised and delivered and that there is a well organised monitoring system of the student's study progress and feedback is provided to students. The main weakness is the evaluation of the employability of graduates and graduate career tracking, particularly for graduates who move abroad or own their own business.

Teaching Staff

The main positive aspects are that the teachers, together with the Head of Department, plan the development of their competencies each year, publish scientific papers, are members of the relevant professional associations and participate in English language courses. The main weaknesses are that the teachers should be further encouraged to attend international conferences, publish outside of Lithuania and be involved in international engineering educational and professional associations.

Learning Facilities and Resources

The main positive aspect of the programme of study is that appropriate study conditions have been created for the students of both programmes including renewed laboratories, computerised workplaces and sufficient hardware and software appropriate to the study disciplines. Facilities are made available by the social partners during internships and for the practical placement elements of both programmes. The college has signed cooperation agreements with the largest companies in the Panevėžys region. The main weakness is that the college should further enhance its facilities to support students with special needs.

Study Quality Management and Public Information

The main positive aspects are that feedback is provided to students regarding their input to improving the study process and the implementation of the new survey system *LimeSurvey*. There are no serious weaknesses, although communication between the social partners and students could be further improved by holding events in the college.

Expert panel signatures:

Dr. Maria Kyne, (panel chairperson), academic