CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

EVALUATION REPORT

STUDY FIELD of TRANSPORT ENGINEERING

at ALYTAUS KOLEGIJA

Expert panel:

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2. **Dr. Ger Reilly,** *academic;*
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Report language – English

Vilnius
2024

Study Field Data

Title of the study programme	***Automobile Transport Engineering***
State code	6531EX001
Type of studies	Undergraduate (Professional bachelor's degree) studies
Cycle of studies	First cycle
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 Sciences
Language of instruction	Lithuanian
Minimum education required	Secondary
Registration date of the study programme	10-01-2012

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I. INTRODUCTION

1.1. BACKGROUND OF THE EVALUATION PROCESS

The evaluations of study fields in Lithuanian Higher Education Institutions (HEIs) are based on the Procedure for the External Evaluation and Accreditation of Studies, Evaluation Areas and Indicators, approved by the Minister of Education, Science and Sport on 17 July 2019, Order No. V-835, and are carried out according to the procedure outlined in the Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC) on 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 (SER) prepared by HEI; 2) site visit of the expert panel to the HEI; 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 is evaluated as satisfactory (2 points).

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

If study field and cycle were previously accredited for 3 years, the **re-evaluation** of the study field and cycle is initiated no earlier than after 2 years. After the re-evaluation of the study field and cycle, SKVC takes one of the following decisions regarding the accreditation of the study field and cycle:

To be accredited for the remaining term until the next evaluation of study field and cycle, but no longer than 4 years, if all evaluation areas are evaluated as exceptional (5 points), very good (4 points) or good (3 points).

To not be accredited, if at least one evaluation area is evaluated as satisfactory (2 points) or unsatisfactory (1 point).

1.2. EXPERT PANEL

The expert panel was assigned according to the Experts Selection Procedure as approved by the Director of SKVC on 31 December 2019, Order No. V-149. The site visit to the HEI was conducted by the expert panel on 7th of March, *2024.*

Prof. Dr. Sc. Eng. Irina Jackiva (Yatskiv), Transport and Telecommunication Institute Riga, Director of MSc in Transport and Logistics, Professor of Mathematical Methods and Modelling Department, Latvia (team leader);
Dr. Ger Reilly, from Ireland; academic member;
Aidas Čurovas, from Lithuania. student representative.

1.3. GENERAL INFORMATION

The documentation submitted by the HEI follows the outline recommended by SKVC. Along with the SER 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.	Additional information based by the request of the expert group;
2.	Examples of Final Theses.

1.4. BACKGROUND OF AUTOMOBILE TRANSPORT ENGINEERING STUDIES AT ALYTUS COLLEGE

Transport Engineering in Lithuania holds significant importance in tackling present and future challenges pertaining to individual transportation, technical service and repair, climate change, and Lithuania's distinct position in transit and goods traffic. Education and research endeavours in this domain are indispensable for adapting to advancing technology and fostering sustainable and efficient transportation solutions. Additionally, Automobile Transport Engineering has emerged as a pivotal branch of mechanical engineering owing to its crucial role in facilitating transportation systems.

Alytus College (AC), a state institution of higher education in the South Lithuania region, was established in 2000. Structure is traditional, approved by the Minutes of the Council of AC on 14 September, 2021, and has the following collegial management bodies: the Council and Academic Board (AB).

There are 2 Faculties: Faculty of Information Technologies and Management and Faculty of Health Sciences and Engineering and 11 accredited higher education study programmes (5 of them – in the English language) offer Professional Bachelor's degree.

In order to facilitate practical training, cultivate study skills, promote applied research and entrepreneurial abilities, and enhance internationalisation efforts, AC has established the

following centres: the Information and Self-study Centre (ISSC), the Practical Business Training Firm ("H&A Export Company"), the Applied Research and Non-formal/Formal Education Centre (ARNFFEC), the Alytus Regional STEAM Open Access Centre, and the Regional Technology Centre (RTC). Additionally, the International Relations and Projects Centre (IRPC) and the Marketing Centre (MC) are dedicated to organising international contacts and exchanges for both teachers and students, shaping the college's image, and ensuring career opportunities for students.

Furthermore, Alytus College operates the Alytus Teacher Qualification Improvement Division, aimed at enhancing the pedagogical and educational competencies of its teaching staff. Committees and workgroups are formed by engaging stakeholders from various sectors.

Automobile Transport Engineering (ATE) Study Program in Alytus College:

- Launched in 2000.
- Regular updates to the program content considering labour market conditions, regulatory acts, and feedback from external assessments in 2004, 2010, 2015, and 2020.
- Demonstrates a proactive approach to keeping the curriculum relevant and responsive to industry changes

II. GENERAL ASSESSMENT

The Transport Engineering study field of first cycle at Alytaus 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	4
2.	Links between science (art) and studies	3
3.	Student admission and support	4
4.	Teaching and learning, student performance and graduate employment	3
5.	Teaching staff	3
6.	Learning facilities and resources	4
7.	Study quality management and public information	3
	Total:	**24**

*1 (unsatisfactory) - the area does not meet the minimum requirements, there are fundamental shortcomings that prevent the implementation of the field studies.
2 (satisfactory) - the area meets the minimum requirements, and there are fundamental shortcomings that need to be eliminated.
3 (good) - the area is being developed systematically, without any fundamental shortcomings.
4 (very good) - the area is evaluated very well in the national context and internationally, without any shortcomings;
5 (excellent) - the area is evaluated exceptionally well in the national context and internationally.

III. 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)

The factual situation

Considering the provisions of the document 'DESCRIPTOR OF THE GROUP OF STUDY FIELDS OF ENGINEERING SCIENCES', the study program Automobile Transport Engineering has clear aims and objectives aligned with the strategic development fields and the needs of the society and the national economy. AC has partnerships with several universities and colleges, allowing for international collaboration and exchange programmes for students and faculty (SER p.10).

AC has implemented a quality management system based on the ISO9001:2015 standard, with publicly available documents outlining the general principles and objectives. The management of study programmes is carried out by the AC Council, which involve students in the design and annual assessment of study programmes.

Integrating a course focused on energy and green footprint issues, emphasising optimization of energy usage, within an existing curriculum can be approached in an implicit manner.

Expert judgement/indicator analysis

The aims and outcomes of the Automobile Transport Engineering study program is in conformity with the needs of the society and the labour.

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

The factual situation

The main goals of Alytus College (AC) are to provide higher education and professional qualification corresponding to the needs of the economy of Lithuania and the level of science and newest technologies, develop applied research activities that are necessary for the region, consult subjects of economy, provide conditions for continuous education, organise improvement of professional qualification and re-training, educate the society capable to work under the conditions of rapid changing technologies (SER p.7).

The study programme of Automobile Transport Engineering (ATE) was launched at AC in 2000. Since then, the content of the study programme has changed considering the labour market conditions, the adopted regulatory acts and documents, the conclusions of experts of international external assessments in 2004, 2010, 2015 and 2020 (SER p.9). It is outlined in the SER (p.10) that the study programme aims of the ATE programme align to the AC strategic plans of 2020-2022 and

2023-2025. In our meetings with the college management team this connection was further explored and confirmed in the information we received regarding the top-down strategic processes and the engagement of the regional stakeholders in strategic planning.

Expert judgement/indicator analysis

The visit and discussion with management, industry representatives and alumni have confirmed that the aims and outcomes of the Automobile Transport Engineering (ATE) *professional bachelor's* degree study programme are in conformity with the mission of AC.

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

The factual situation

The curricula of this professional bachelor programme in transport engineering was established considering all the regulations of Lithuania in the study field.

The learning outcomes and structure of the programme comply with the requirements of all needed legal acts including Description of the Lithuanian Qualifications Framework. The outcomes are in compliance with the provisions of the accreditation standard of engineering study programmes and with the description of Study cycle.

Table No. 1 Automobile Transport Engineering Study program is compliance to general requirements for *first cycle study programmes of College level (professional bachelor)*

Criteria	General* legal requirements	In the Programmes
Scope of the programme in ECTS	180, 210 or 240 ECTS	180 ECTS
ECTS for the study field	No less than 120 ECTS	147 ECTS
ECTS for studies specified by College or optional studies	No more than 120 ECTS	9 ECTS
ECTS for internship	No less than 30 ECTS	30 ECTS
ECTS for final thesis (project)	No less than 9 ECTS	12 ECTS
Practical training and other practice placements	No less than one third of the programme	45 %
Contact hours	No less than 20 % of learning	33 %

Expert judgement/indicator analysis

The professional bachelor study programme of Automobile Transport Engineering (ATE) follows applicable legal requirements of the field and cycle study programme.

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

The factual situation

In the SER only information about general aims and learning outcomes of the programme were provided. To enhance the understanding of engineering practices, a revision was made to the study program's objectives in 2023 (ratified on May 4, 2023, during the AC Academic Board meeting No V3-36). This revision incorporated the advancement or refinement of automotive engineering technologies. Additionally, adjustments were made to the ATE study program, aligning the contact hours for full-time and part-time studies to ensure equal availability, accessibility, and assessment methods across both permanent and long-term study formats.

The ATE Program focuses on educating specialists with theoretical and practical knowledge: a significant part of the disciplines taught in the Programme are with exercises or laboratory work, during which students perform real tests with equipment and measuring instruments. This hands-on approach aids in reinforcing theoretical concepts delivered during lectures more effectively. These objectives match well with the requirements for programme of this type as outlined in the document 'Descriptor of the Group of Study Fields Of Engineering Science; Chapter II Concept And Scope ff Study Fields'.

During the visit, it was explained and after the visit the evidence (based on some subject example) provided that detailed description of the links between learning outcomes and teaching/learning and assessment methods are described in course curricula and programme matrix.

Expert judgement/indicator analysis

During discussions in the frame of the visit with teachers and students, the method of evaluating students' knowledge and skills was queried. Participants identified the assessment system and criteria utilised in the courses, as well as those outlined in the descriptions of relevant study subjects. However, there is a recommendation to use more varied forms of assessment in courses.

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

The factual situation

The structure of the study program ensures consistent development of competences of students. The courses within the ATE bachelor study program are strategically organised to progressively enhance student capabilities. Initially, fundamental course units are introduced, laying the groundwork for subsequent learning. As students advance, they delve into specific course units that deepen their understanding of narrow fields, ultimately allowing them to specialise and become experts in particular domains. The culmination of their studies is reflected in the final's thesis, which showcases the comprehensive skills acquired throughout their education.

Considering that some students choose applied research as the topic of their final work and can also continue (and should continue) their studies in a master's program, it would be useful to introduce a subject in the 3rd year - Introduction to Scientific Research. The course would also prepare the

student for writing a literature review, which in the presented final works is not always carried out logically.

Expert judgement/indicator analysis

The structure of the study programme ensures consistent development of competences of students. By analysing subject descriptions, the experts found that for some courses (Elektrotechnika Ir Elektronika; Vidaus Degimo Varikliai, Automobilių Remonto Technologijos etc.) the list of literature sources is not up to date. Considering quickly developing technologies it is very important and it needs to be revised, so student' competences would meet the everchanging environment.

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

The factual situation

The ATE study programme is focused on the aims of the AC strategic plans of 2020- 2022 and 2023-2025: carry out high quality studies that provide a person with higher college education, provide conditions for lifelong learning, increasing the internationalisation of studies and developing applied research.

Students of the programme have the opportunity to personalise the studies by selecting alternative or free optional subjects.

Students studying in the ATE study programme have the opportunity to choose two alternative subjects (9 credits - 5% of programme) in the field that conform to the personal learning objectives and intended learning outcomes (Automobile Repair or Automobile Diagnostics): respectively, 'Car Body Repair' and 'Car Defect Detection and Examination' or 'Diagnostics of Control Systems for Hybrid Cars and Electric Vehicles' and 'Diagnostics of Car Comfort, Safety and Auxiliary Electrical Systems'.

During the study process, according to the Regulation for Organizing Studies of Alternative Subjects at AC in order to meet students' needs for individual studies, develop key competencies and influence the formation of personality. The Regulations of AC Students' Studies According to Individual Study Plan anticipate the possibility to study according to individual study plan having coordinated that with the Study Programme Committee, changing the study courses indicated in the study programme with the equivalent content courses from another HEI corresponding study programme.

Expert judgement/indicator analysis

The curricula assure the students the possibility to continue their studies at the master's level. Even if the current curricula offer the students to gain the adequate specific skills needed in the labour market, some improvements could be done, such as including more imposed practical activities to be performed outside the college (industrial training, internships, etc).

It would be good to increase the competitiveness of graduates, as well as to expand the capabilities of Erasmus and internationalisation, to introduce mandatory or optional completion of the program module(s) in English.

As the students have at their disposal some courses at free selection, they can shape, even if only in a small amount, their study course to be in line with their individual interests and employing plans, but it isn't clear how they choose them in practice.

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

The factual situation

SER provides detailed information about the final assessment in the ATE study programme. The provisions, requirements, and assessment criteria for the preparation of the final thesis are regulated by the Regulation for the Preparation, Submission, Defense and Assessment of the Graduation Thesis at AC. The graduation thesis is prepared and formalised in accordance with the Methodological Requirements for the Preparation of Graduation Theses of AC and the Special Methodological Requirements for the Preparation of the Graduation Thesis of the ATE study programme.

The Graduation Thesis Qualification Board (QB) is composed of a minimum of 5 persons, with at least half being representatives of employers. Among them, one is designated as the chairman of the board, and there must be at least one teacher responsible for overseeing the study program's implementation. The structure of the QB is endorsed by the AC director's order. Reviewers and/or consultants for the final thesis, if needed, can be lecturers from AC or other higher education institutions, as well as specialists in the relevant field possessing at least a master's degree and/or practical work experience. The selection of thesis reviewers is carried out by the head of the Engineering Department and ratified by the AC director's order.

Final theses are evaluated on a 10-point scale based on the attainment of learning outcomes. Each assessor evaluates the thesis individually, considering its adherence to formal requirements, content, and presentation. The final assessment of the thesis is determined during the board meeting by calculating the arithmetic average of the assessments provided by the board members and the reviewer. In their final theses, students demonstrate their ability to integrate and systematise knowledge gained from various study courses, apply research skills in practical settings, and exhibit specialised, social, and personal competencies in the field of transport engineering. The final projects within the ATE study program tackle issues related to the design, development, and implementation of new technological processes or activities within specific car service stations, as well as the modernization of existing ones. They also involve research into various automobile systems, offering solutions for enhancement. The content of these theses, aligned with the focus of transport engineering studies, indicates the preparedness of future specialists for professional endeavours.

The topics of final theses within the ATE study program are sanctioned by the AC Director's order. Additionally, some students undertake projects commissioned by entering contracts with various companies (like AB Astra LT, UAB Jupojos technika, UAB Danilėja, M. Valaitis IĮ etc). These projects typically entail analysing company operations and technological processes and devising solutions to address identified challenges.

Expert judgement/indicator analysis

The ATE bachelor degree study programme final theses are in compliance with the field and cycle requirements. However, there are some gaps in the quality management system of final works. For instance, final works (not only evaluated with high marks) also have deficiencies in text formatting and content, and a lot of non-peer review literature sources.

According to experts, final thesis assessments are generally favourable, although there's sometimes ambiguity regarding deductions for errors in text and formatting, with some works receiving '10' marks despite such issues.

During the discussion, it was uncertain when students would choose topics for their final theses. Some final-year representatives (last-term students) participating in the discussion were still undecided on their final work topics. It was evident that an earlier selection of topics could have facilitated more purposeful and higher-quality final projects.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. This study programme is well in line with AC's strategic goals and is well recognized by all stakeholders.
2. The AC team emphasised particular focus on the recommendations highlighted during the previous ATE accreditation, specifically regarding the need for a balanced assessment system (special regulations and changes in course descriptions were adopted) and the necessity for more targeted and extensive collaboration with social partners. This collaboration aims to broaden the scope of available topics for final projects and enhance their diversity. Strong collaboration with industry partners enables development of the specialised laboratories and integrates industry experience and expertise into the delivery of study courses.

(2) Weaknesses:

1. Limited focus on entrepreneurship. Given the increasing demand for entrepreneurship skills in the job market, a stronger emphasis on entrepreneurship could be a valuable addition to the programme.
2. There is a limited level of ERASMUS activity, which is an area that requires attention and improvement. ERASMUS is a valuable programme that allows students to gain international experience, develop cultural awareness, and expand their networks. By not promoting ERASMUS activities effectively, the institution could be limiting the opportunities available to its students and potentially missing out on opportunities for collaboration with other institutions.

3. The ongoing improvement in quality control of the final work preparation and assessment process should be continued.
4. Use various forms of assessment more widely, with clarification of the presentation of assessment criteria for the final course assessment.

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

Factual situation

SER (p.10) emphasises that AC values the importance of the fundamentals of natural sciences and engineering sciences and have included clear statements on this in the learning outcomes for the programme. Further there are references also to the development of the person's ability in analysis of information and the making of ethically correct judgements in the context of the ATE study area. In this case there are relevant references in Programme Learning Outcomes (PLOs) 1 and 9 to effects above.

This sets the target for the programme and graduates in the context of knowledge development in the graduate. It follows that having declared this that AC have teaching, learning and research strategy and programme plans to support this at the programme level so this can be achieved.

Considering how this may be achieved and the SER (p.15) provides descriptions relating to expected achievement of connection to science through the art of research through functional boards and the operations of the college (the generic bonus payments to staff for research actions, course organisations, etc.). There is an additional and more appropriate plan provided in Annex 4 of the research actions for the ATE study area.

Therefore, it is accepted that in AC the importance of engagement in research is emphasised SER (p.15). It is noted that AC mentions there that the national funding programmes are inadequate mostly to support research engagement (SER, p.16). To address this Annex 4 documents the breakdown of the funding required by AC for the Transport Engineering Areas as well as details of the target research areas to be supported in the development of the applied research in ATE field.

SER (p.16-18) and ANNEX 3 provides a summary of the research interests and outputs of staff working on this programme area. There is a range of actions completed by staff to achieve research outputs connected to the ATE study area. Quantitatively, 85% Scientific articles published in peer reviewed academic periodical journals listed in ANNEX 3 are highly relevant to the study area. Approximately 25% of the scientific articles published in peer reviewed academic databases can be considered directly relevant to the study field and more than 50% of the remainder directly relevant to the pedagogical aspects of the programme. Overall, in the context of the study programme and the research output of the ATE staff the remainder also demonstrate strong ambition of academics to be research active and engaging with knowledge development in their

area. 70% of scientific articles published in national and international conference proceedings are relevant or connected to the ATE study field and the remainder are connected to sciences in the field or pedagogical techniques. 50% of oral presentations at national and international events, publications in the press, methodological publications are relevant or connected to the ATE field while the remainder are connected to engineering design and sciences or pedagogical techniques. Considering the latter publications, it is very important for AC to demonstrate engagement within its local region and in Lithuania through regional media and technology articles which are accessible to the widest possible public audience. SER (p.18-20) also provides a list of other actions or engagements of the staff of AKC deemed relevant by the SER to the programme links between science (art) and study activities. These include but are not limited to professional activities, memberships of scientific and professional organisations, memberships and active roles in teaching and pedagogical societies or institutions, engagement in actions with local stakeholders and enterprises and engagement in Erasmus actions and planning of attempts to engage in joint planning of research actions through Erasmus or international meetings and collaborations. Among these activities it is worth noting that as high achievements there are a number of staff who are members of editorial boards, while in the context of transfer of research into teaching that staff value this type of engagement with students in applied research, resulting in joint staff and student publications.

During the onsite visit, we were informed that AC has a research action plan to support its wider engagement in the region and heard from management staff and academic staff of college support and assigned a budget to support actions. Also, on the tour of facilities the library staff presented details of the reading and research materials available to support scientific engagement in the ATE programme areas. During the onsite meeting with the alumni and local enterprise representatives it was established that while there is some ongoing interaction within the region to develop supporting research actions that there is both a strong willingness to see this develop further.

Expert judgement/indicator analysis

It was found that there is evidence of a high level and programme level strategy for support and engagement in research in the ATE area. We have found that staff are motivated and active in producing research output in the ATE study area and wider pedagogical study area. There was evidence of staff engaging with student in applied research within the study programme which demonstrates opportunity and attempts to link research into teaching on the programme. We found good support from the local enterprises for applied research.

It is noted that there is scope for further development of the research output in the ATE field which can be further enhanced by encouraging those teaching staff who are directly qualified in the ATE field to attempt more work in this regard. We note the necessity for further funding to support the development for research for AC. Some of this could be obtained through national or international funding projects and this could be developed through international collaborations.

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

Factual situation
The list of modules in the study programme show that future technologies /systems relevant to automobile engineering or transport are being comprehended by the programme and delivered throughout modules.

SER (p.12-13) outlines the ways in which research and external stakeholder engagement in training and technology awareness events and engagement is used to connect relevant technology and state of the art in the relevant related sciences into teaching. There is an additional reference SER (p.16) to how students gather information and data while on work placements to be used in research during their thesis work. This enables students to access and work collaboratively on new technologies with stakeholders. Considering the trend towards electric vehicles, use of batteries, battery charging, use of lightweight materials, autonomous vehicles, AI, sustainable transport, EMU and system diagnostics it would be valuable to see these technologies reflected further in the titles of the final year projects / theses in forthcoming years. There is some further scope to enhance this bilateral activity so that the projects which are completed more frequently relate to use, research on or with latest technologies, as well as encountering typical research and design actions.

During the tour of facilities, the equipment provided for student use in learning was shown to be modern and well maintained and applicable to the ATE Study program. During the meeting with the management staff the panel was informed of ongoing plans for the development of further facilities for the programme which will enhance the opportunity for ongoing engagement with modern technologies by the ATE students. During the meeting with alumni and stakeholders it was noted that they too have ambitions to develop the ATE technology and knowledge capacity within their companies in line with national and international trends.

Expert judgement/indicator analysis
Evidence is provided in the SER and Programme Learning Outcomes of the good relationship between the programme being evaluated and the opportunity for AC and its staff and students to engage with relevant technologies. During the onsite visit the equipment was shown to be relevant and modern and providings scope for engagement in research actions.

Noting the importance but modest size of the ATE programme in AC the challenges to obtain ongoing funding for this study field are recognised and will require strong management focus in the future to ensure that alignment between research actions and the study programme are well maintained. Acknowledging that programmes need to educate students who graduate with current knowledge there would still be an advantage to having at least one new module in the study programme focusing on future technologies to drive/support such developments with stakeholders in the region.

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

The factual situation

SER (p.12-13) refers to engagement of students in applied research through project work referring to the list of titles of the theses and the importance of the role of academic supervision in helping to strengthen this type of action. SER (p.16) refers that 43% of applied research relates to supervision guidance of theses. Having reviewed the list of titles of completed theses (ANNEX 2), there is evidence of opportunity for students to obtain fundamental skills in applied research project design work.

Through review of the varied project types and theses provided and following the onsite visit it can be noted that students of the ATE area are engaging and researching existing materials related to their projects and that there is a quite consistent style to the manner in which they are reporting on these works as well as their own contributions. Overall, this presents a consistency in approach on the study programme.

During the on-site visit academic staff outlined how they work with students on the programme to enhance learning on ATE relevant technologies such as electric vehicles, new fuel applications as demonstrated through the projects / research from the staff and documented relevant outputs from these actions. During the tour of the facilities one student who was working on a braking efficiency project with his supervisor presented his research project and findings and was able to both describe a good robust approach with contextual findings and scope for further development of the work.

Expert judgement/indicator analysis

There is evidence of opportunity for students to engage in scientific activities. Work presented shows a consistency in approach with projects being well presented by students. Overall, it appears that students engage quite significantly with design processes in these projects, which has the potential to have originality in thought process and output in design and in creation of IP of value to AC.

There is an opportunity for the study programme area to have more teaching staff engaged in supervision of projects and to support staff who are publishing peer reviewed materials to be more involved in developing the project work and leading ongoing development of the scientific activities for the ATE programme area.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Active engagement of staff in research with a few producing a small number of peer reviewed research in the study area.
2. Annex 4 shows a historical research plan for the ATE area and there is evidence of activity in publishing outputs related to the ATE and personal domains of interests or pedagogical techniques which demonstrates progress on research.
3. There was some small but good evidence presented of staff student engagement in research.

(2) Weaknesses:

1. There is a need to continue to evolve the strategy that drives research, by setting KPIs and monitoring targets to drive actions.
2. There is further scope for staff who are producing peer reviewed journal outputs to be more involved in supervising students in applied research.
3. There is a need for a new costed future plan for staff and students and to have access to relevant state of the art/latest developments in the ATE area.
4. There is an opportunity for better cooperation with Lithuanian universities and international partners to improve the quality of applied research and visibility.

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

Factual situation

SER outlines that to study Transport Engineering in Alytus College, applicants must have passed at least one national matriculation exam and have at least a secondary education. But the requirements for admission can be different. They depend on the year of secondary education completion. The recognition of additional points is clear and well described in Annexes.

All this information in detail is described on the website of AK and is easy to find. Students, who would like to enrol in AK, can find all the needed information and requirements on how to submit their documents, what are the criterion, etc.

The admission data is provided and is easy to understand. The average, lowest and highest competitive scores of students that enrolled in the ATE study program pointed out.

Administration is looking forward to connecting with Kaunas college but they don't think that it will raise the number of students. But they try to remain positive, as the Self Evaluation Report group emphasises that the connection will allow Alytus college (further - AC) to reach students from a bigger area, not only from Alytus region. College not only cooperates with Kaunas college but also with the city and they hope that it will allow AC to grow.

Expert judgement/indicator analysis

There is plenty of space for improvement for the institution in marketing which would help to attract more students. The connection with Kaunas college must be used as a key for attracting more students as the college has future plans for opening a transport innovation centre with three laboratories: electric cars, traffic safety and alternative fuel.
All the criterion are clearly stated and explained in the website as well as what students have to do to apply for AC.

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

Factual situation
AC doesn't perform the procedure of recognition of foreign qualifications and rely on the decision of academic recognition done by the SKVC.

During the admission, foreign students have different systems to be able to study in AC, one of which is the test of the English language (written and spoken). AC selects students only according to their academic information and follows non-discrimination principle.

There are no non-accreditation cases of recognition of results. It means that study outcomes are fully recognised by the institution.

They did not provide any specific information about international students, and none came to AC for Erasmus+. According to SER in the past 3 years only 13 students applied.

Expert judgement/indicator analysis
College could make more effort in attracting foreign students to study in AC as the study program is interesting and the institution is doing its best trying to follow the latest trends by renewing their equipment needed for this study program.

3.3.3. Evaluation of conditions for ensuring academic mobility of students

Factual situation
Students get more than enough information about the possibilities to study abroad (during the introductory week, on social media, websites, etc.) but there is no clear information stated about the recognition of the credits which may discourage students from taking this opportunity. The payment of national scholarships or loans is not interrupted, they are also granted a lump sum.

During the meeting with students from the SER group they highlighted that the college provides all the needed conditions for Erasmus+ or doing internships in other countries but the students especially mentioned only Germany. They confirmed the information that AC provided about introductory week and that they get loads of information that they need including Erasmus+ and internships abroad.

Three students from the interviewed group went on an internship to Germany and had only positive feedback.

Internships are organised according to practice organisation, execution and evaluation document. Department has the main partners, which can be suggested for students. They gave two supervisors: in the institution and at the company. The student and the supervisor make a plan of practical results that has to correlate with that organisation. At the end of the internship, the student has to submit a report to the supervisor (evaluation of supervisor accounts for 30 percent of final mark) and then the student has to defend his work.

Expert judgement/indicator analysis

From the institution side, it does everything so that students could freely go and study or do an internship in a foreign country.

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

Factual situation

SER states AC provides a lot of information about career possibilities and even has the interactive career management information system (CMIS), which provides a great deal of support in the field of student career counselling.

Financial support is also provided but only to students who do not have academic debts. There are 6 different scholarships: social, incentive, orphan's, mobility, one-time social benefit and a bonus. Counselling is also provided to those affected by personal difficulties, divorce, loss of family members or serious illness, problems at work or study, eating disorders, alcohol or other drug abuse.

To take care of students' health, there are sports events that are being organised by AC.

Students mentioned that they are very pleased with the support that the AC provides, from scholarships to their free time.
Student emphasise the fact that they get a 200 euros scholarship from the economic and innovation ministry monthly which is enough for them to satisfy their needs. Only two students from the group work to get more money.

Administration explained that for students to get a scholarship out of six possible, they have to show good study results (additionally: participate in scientific research) and it also depends on the scholarship fund. That is the reason why not many students get them.

Alytus college student union plays a role too. Students said that they help them as soon as possible and with any question in their competency.

Students get enough attention in lectures because of the small number of students in classrooms. Lecturers are always open for help and give consultations. After the lectures lecturers can answer questions personally but if more help is needed, they always make an appointment for a meeting to solve problems.

Mainly students from the Alytus district (Lazdijai, Varėna, Druskininkai) live in the dormitory and only a few from Alytus but the living and resting place for students for the college is a high priority.

Expert judgement/indicator analysis

Students are provided with everything they need. As the institution has not many students every one of them is given more than enough attention and help, whether it is financial support, accommodation, or consultations.

3.3.5 Evaluation of the sufficiency of study information and student counselling

Factual situation

For new students at AC, introductory week events are organised. In this week they get all the needed information about studies, subjects, penalties, criterias and other significant information. All the study materials are placed in the MOODLE system which is also used for student discussions, encourages communication and student group work.
They also have a tutor system and each academic group gets a person, who helps them to blend into the community of AC.

The engineering department prepares consultation schedules, informs students about the time and place of lecturers' consultations. Those schedules are published on the AC website.
Before choosing optional study subjects of the study programme, students are provided with detailed information about the significance of mandatory and optional study subjects and the opportunities provided for their further career.

AC provides the possibility for students to study on an individual study schedule and/or plan, but during the period under assessment there were no students who wanted to study on an individual plan.
Twice a year the Committee of ATE analyses the feedback on the study programme, its implementation and organisation of the study process and tries to improve it by organising meetings with the students to discuss the survey results.

Students mentioned that they enjoy the fact that lecturers use the equipment not only on the college's gadgets but also on students' cars. Lecturers are very keen to help students and even give them their phone numbers for phone calls if urgent help is needed.

They have well developed their MOODLE system where they can find all the needed reading material, information and slides that are up to date with latest tendencies. Also they can find all the compulsory books for their studies in the library as they prefer them to digital ones.
If students ask to, lecturers record the lectures and then upload them on the system.

In the meeting with stakeholders, they said that AC prepares students very well and gives enough knowledge not only through theory but practical education as well. They come to the institution with no knowledge and after graduating they can already teach others about engines.

Expert judgement/indicator analysis

There is no need to change anything as the college always tries to improve the study program by buying new gadgets and equipment for laboratories and lecturers providing material following the newest trends.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Students are provided more than enough information about the internship and Erasmus+ possibilities.
2. Financial support, accommodation in a supervised dormitory and consultations are guaranteed for every student.
3. Information and equipment needed for this study programme are often up to date. They have well developed their MOODLE system.
4. Students are satisfied with everything that the institution provides.

(2) Weaknesses:

1. College does not believe that the connection with Kaunas college will change the situation with a small number of students, so a plan needs to be formed for the ongoing merging process.
2. Students expressed that it would be great if Alytus College had a sports facility.

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

Factual situation

Study programme is carried out in full-time and part-time modes of studies. The student schedule may not exceed 8 academic hours per day. 40 percent of the scope of the study subject consists of contact work, the rest is devoted to independent studies, which are combined with the provision of additional consultations.

Teachers closely link study content with real problems in various fields and their solutions, apply traditional study methods, complementing them with innovative educational and research development methods adapted to the forms of activities. The teaching/learning process is organised in the form of teamwork, active participation and dialogues.

In order to integrate practical transport engineering issues into the subject taught, teachers invite social partners-practitioners to teach separate topics of special study subjects or to hold seminars. The study process is also complemented by educational visits to the companies of social partners: Bosch Car Service MB "Autorėjas“, UAB "Autoalas“, UA "Remanus“ and others.

Student achievement assessment procedures are based on clearly formulated criteria that allow for an appropriate and reliable reflection of the level of knowledge, abilities and practical skills that the student has achieved during the study period. At the beginning of the semester, the lecturer of the study subject informs students about the system of assessment of the learning outcomes specified in the order of assessment of learning outcomes, explains the components of cumulative assessment and their relative weight in the general system of assessment of knowledge and skills.

After graduating from college, graduates can choose compensatory (post-college) or additional studies at university in the same or a different field. Graduates of additional studies are provided with the opportunity to participate in admission to the second cycle (master's) study programmes of that university. Such studies in the field of transport engineering are offered by Vilnius Gediminas Technical University, Kaunas University of Technology and Vytautas Magnus University.

During the meeting, the expert team learn AC invites social partners to teach and/or hold seminars and even organises excursions to different companies. In the group there were students who thought about taking additional studies in Kaunas or Vilnius to continue masters.

Expert judgement/indicator analysis

Information provided in the SER does not collide with legal requirements and the expert panel can confirm that everything that was stated in the report is in process according to the information gathered in the meetings.

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

Factual situation

Since 2012 AC staff have participated in the project "Increasing the Accessibility of Studies" co-financed by the European Union Structural Funds and implemented by the State Studies Foundation. The training organised by this project was attended by 11 AC employees who acquired specific knowledge.

Alytus College has a coordinator for students with special needs, an employee of the study centre, who provides comprehensive assistance and consultations. Students with special needs have the opportunity to individualise the study process.

Expert judgement/indicator analysis

It is nice to hear according to the SER that 11 lecturers participated in the project about working with the students with special needs or from vulnerable groups.
Suggestion would be to have more workers that have knowledge about working with students who have special needs or are socially vulnerable.

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

Factual situation

Monitoring of students' study progress is carried out by the lecturer and the ATE study program committee. Lecturers monitor the progress regarding measures provided in the description of the study subject. The feedback system is vital for the institution as it encourages teacher-student communication.

AC teachers, in a timely, clear and comprehensible manner, inform the students about the results of the assessment of the work done as well as the assessment of their reports. Together with the students, the teachers talk about their work. The ATE study program coordinator includes the results of monitoring students' study progress in the study programme performance assessment indicators, collects and analyses them and after the end of each session provides a report which is approved by the faculty board. Special attention is paid to first-year students by the college staff so that they can feel appreciated and have all the support needed.

During the visit, lecturers confirmed that after every exam session they have meetings with students for feedback. They believe that by talking after an exam, they get the most from the students as they are more open and feel free to speak their minds. Students said that lecturers tend to explain why they wrote a certain mark and what has to be improved in order to achieve higher marks. It is easy for them to monitor student's study progress as the institution has a small number of students.

Expert judgement/indicator analysis
By continuing the monitoring and feedback sessions AC can achieve a lot and become an even better institution who prepares well-trained professionals. It was nice to hear from the students that they are not forced to give feedback and they do it by one's own volition.

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

Factual situation
Alytus College monitors the employment of graduates by conducting surveys during which efforts are made to find out the situation of graduates in the labour market. Objective indicators of how graduates of the study programme manage to establish themselves in the labour market are reviewed and analysed after 6 months, 12 months and 3 years after graduation.

EMIS (Educational Management Information System) objective monitoring of graduates' careers is carried out based on the data provided by Sodra on graduates working in Lithuania. This Sodra data are not updated when the graduates' careers change. The total average employment of the graduates of the field of Transport Engineering Study programme for the last 3 years is 77%, the average of the employed graduates according to the acquired qualification level is 75%. According to the survey of subjective career monitoring of graduates of the ATE study programme in 2021–2022, it became clear that graduates evaluated professional preparation and acquired competencies positively. After conducting an analysis of employers' opinions (about the professional preparation and available competences of AC graduates), it became clear that the employers value positively the professional preparation and acquired competences as 70% of interviewed employers graduates are completely satisfied.

In the meeting, administration confirmed that they monitor what graduates are doing 6 months, 12 months and 3 years after they complete their studies. There is a special Lithuanian career management system, where the institution can see how the graduates are doing and if they are working.

Stakeholders answered that they have a social partner agreement with the college, that students can come to the company and do internship, after asking them about their role in the improvement of this program.

They also mentioned that it is clearly visible which students were motivated during studies because their skills and knowledge gained while studying unfold when they start working. Students come for an internship with theoretical knowledge, use it practically and all of this they use in their final thesis.

Expert judgement/indicator analysis

The fact that even after 3 years AC checks on graduates on how they are doing is highly commendable. For graduates it is easy to get a job in local companies and even in companies in other cities as the institution prepares their students not only theoretically but also practically. During internships they show their skills which stakeholders evaluate very positively.
The AC should sign a contract with companies so that they could use AC laboratories.

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

Factual situation

The Code of Academic Ethics of AC provides for academic integrity, tolerance and non-discrimination in order to foster academic integrity, transparency and accountability to the interested parties.
AC provides no information on examined cases of violations of the principles of academic integrity, tolerance, and non-discrimination over the last 3 years.

During the visit it was mentioned that lecturers think a lot about artificial intelligence as they have to revise their evaluation methods, individualise tasks and other measures so that students have less possibilities to use AI. They are also thinking about disconnecting the internet on computers during exams. For now, they only use eLABA where students upload their final thesis, and the instrument calculates plagiarism. It can be higher than 20 percent.

Expert judgement/indicator analysis

It is difficult to evaluate the pros and cons of the Code of Academic Ethics usage as there were no cases during the last 3 years. The expert panel is pleased to hear that lecturers are against AI usage in exams or even final thesis and are planning to take actions against it.

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

Factual situation

AC Study Regulations define the possibility for students to appeal. They provide all the procedures for handling an appeal are provided in Description of the Procedure of Submission and Examination

of AC Appeals. It defines all the procedures. There were no appeals and complaints submitted by the students of the evaluated field studies over the last 3 years.

Students in the visit mentioned that at the end of each semester they get a questionnaire for each course in which they can speak their minds about the subject, material, and lecturer.

Expert judgement/indicator analysis
It is nice to hear that for the institution students' opinions are important.
No other conclusions can be made as there were no appeals and complaints submitted by the students over the last 3 years although students confirmed that they get the information about that kind of possibility.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Lecturers try to make sure that student's work is as transparent as it can be.
3. AC prepares graduates with not only theoretical knowledge, but also with practical knowledge.
4. 11 institution workers gained specific knowledge on how to work with students from vulnerable groups or special needs.
5. Monitoring of graduates. Even 3 years after graduation they still check on their graduates on how they are doing.

(2) Weaknesses:

1. The software for detection of plagiarism should be implemented as soon as possible as AI possibilities keep spreading and it is getting harder for lecturers to detect it.

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, professional) of teaching staff within a field study programme(s) at the HEI in order to achieve the learning outcomes

Factual situation
A list of permanent teaching staff of the field subjects at the HEI (at least half-time position and at least 3 years at the evaluated HEI) is provided in ANNEX 5, with details of their pedagogical and/ scientific degree, and a statement of their experience. ANNEX 5 also provided a list of the research interests with publications of the teachers and the subjects which they teach and some numeric data about their FTE status at AC. Details are provided for 11 teachers who are attached to teaching on this programme. Following the onsite visit additional details were provided of specialism areas associated with staff qualifications.

The summary analysis of the overall assignment of teachers provided in the SER (p.39) outlining the qualification of the staff teaching on the programme shows that just less than 50% of teaching on ATE subject matter fields have a PhD and all staff have at least a qualification at Master's degree.

50% or more have qualifications in the ATE study field area with 64% of the programme delivered by staff with no less than 3 years' experience in the field.

Following onsite visit, the panel were provided with a copy of the document "Working Time Structures of Alytus College Teachers - Procedure Description" and this provided full details of the methods used by AC in assigning teachers to the ATE programme, scientific and programme management, and public activities. In keeping with this procedure evidence in the SER (p.39) shows that staff are assigned according to the requirements for AC and the programme.

According to the SER (p.39) staff turnover is low. New staff who are offered contracts may later be permanently employed if offered a subsequent contract. Considering the student teacher ratio, it appears that as there are 56 total students listed and at least 11 teachers in the study field there can be an adequate student teacher ratio in terms of the direct class contact for students and teachers. SER (p.35) refers positively that staff of the study programme have undertaken some training in awareness and provision of support to students with special learning needs. This is a positive initiative as tailoring teaching methods and content to student audiences with varying needs will help to increase the scope of the benefit of the teaching programme as well as assist the academic staff in their own understanding of the special learning requirements and assessment requirements of such a varying cohort.

SER (p.40) states that final year projects are supervised by teacher practitioners while some subjects in the study field are also delivered by teachers from other colleges or universities. This presents an opportunity or development of staff collaboration between institutes.

Expert judgement/indicator analysis

Staff are well qualified to teach this study programme. There is evidence that AC employs adequate staff to meet the teaching requirements and that the staff student ratio is acceptable. Hiring of staff is in line with international norms and there is evidence from SER, onsite visit information and other documents that there is established practice in the management of staff and their workload allocation to the ATE programme.

As the programme area develops and grows in the future, AC may need to find additional ways to increase the number of staff with ATE specific skills and qualifications to achieve this through inter institutional collaboration.

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)

SER (p.40-42) outlines the mobility opportunities for staff under Erasmus and international exchange actions. In general, the type of interaction involved in exchanges is typical of international exchanges involving teaching exchanges, conference actions, project collaborations etc as happens in other countries which is to be expected. This will also be beneficial in creating staff collaborations for developments for student exchanges and joining project work in undergraduate competitions or in research.

SER (p.40) outlines that there are 52 Erasmus exchange agreements maintained by AC which is a good number with 8 in total dedicated to the ATE study area. This would seem to be adequate to cater for the staff numbers teaching on this programme considering their presented profile in terms of qualifications and current rate of exchanges. SER (p.42) also provides a description of the various exchange experiences incoming and the opportunities that could be derived from these.

Evaluation of teacher exchange forms a part of teachers' annual review and certification as outlined in SER (p.42). Staff exchange is operated on a competitive basis with proposals being evaluated in terms of their strategic importance to AC as well as the opportunity for the exchange to benefit the teacher's personal development.

During the onsite visit while meeting academic staff it was confirmed by staff that there is more than adequate funding and support for staff wishing to undertake Erasmus visits. Some staff referred to the challenges that can exist in taking up the opportunity each year as there can be individual circumstances from time to time such as family and caring responsibilities which are understood and acceptable. Table 13 indicates that the number of teachers engaging in mobility actions has increased in the last 3 years, to 4 in total while the number of incoming staff under mobility agreements is listed as 2 for the last two years.

Expert judgement/indicator analysis

There is both inward and outward staff mobility through Erasmus activity at AC and related to the ATE programme area. The rate of exchange is very acceptable in the order of 25% and generally in line with international staff training and teaching mobility rates. The environment presented in the SER and described by staff in onsite meetings demonstrates a positive and supportive situation for staff exchanges creating a good platform for further development. There is evidence that the actions outlined in the SER (p.44-45) are having a positive impact.

There are good opportunities for AC to further develop these relationships and also to strengthen its opportunities for collaborative teaching, student exchange and research into the future through creating erasmus network partnerships.

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

SER (p.43) outlines the importance of staff development. It notes that in the first instance staff are required to have a specialist qualification in the domain in which they teach and then accounting for their combination of professional technical and teaching experiences they are assigned subjects to teach. SER indicates that annual staff development plans are prepared and a comprehensive list of approaches to this methodology is provided. SER (p.43) explains the importance that AC pays to the investment in staff training and outlines how it supports staff in this regard and reports the emphasis placed on staff training and development, completion of higher degrees (PhD) and completion of research which forms a significant part of the process for technical and pedagogical knowledge development. As earlier reported, evidence of research output for staff supports the premise that staff are engaging in this form of activity. Of great importance is the collaborative

nature of personal and professional interactions among teaching staff and the cooperation that occurs in development and sharing of approaches to teaching and materials for the programme. SER (p.43) also outlines the importance of the engagement of staff in local collaboration with business, through provision and undertaking training with companies in the region and through collaborative projects.

During the onsite visit staff identified training received in new technologies that had been acquired and installed in laboratories (observed during the tour of facilities). They also strongly referenced the importance of the collaborative and mentoring environment and the opportunities supported by AC management for professional development.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. A collaborative and supportive professional working environment exists among staff teaching in the ATE programme area.
2. Staff are engaged in completion of research work and have a reasonable output in the ATE field and in pedagogical domains.
3. There is evidence of both inward and outward Erasmus activity and which is beneficial to staff and the students on the programme.

(2) Weaknesses:

1. Staff training / development and engagement in research remains challenging in the context of the funding available to AC. This will require ongoing action to maintain the current level of activity.
2. The ATE programme relies on a small number of staff with specialised qualifications in the ATE area. This is a possible risk and should be addressed through hiring of staff with additional qualifications and/or encouraging more inter institutional collaboration within the region.
3. There is a need to improve more variation in personnel engaging in Erasmus actions to reduce the effort required by the small existing staff cohort undertaking this work.

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

Factual situation

SER (p.46) provides an initial summary of the dedicated and shared space available for teaching of the ATE programme. SER (p.46), Table 16 shows a breakdown of the space to student ratio. This has decreased slightly in recent years as the student number increases and AC have stated that at approximately 9-10m2 per student that this remains adequate. In practice-based education it is most important for students to be able to work safely in workshops, to be able to carry out the

various learning activities under the direct supervision of teaching and support staff and to have facilities that are designed to meet the relevant Health and Safety Requirements stipulated for the activity type taking place. SER (p.46) states that the laboratory capacities can cater for up to 25 students, while the programme demand is at 18 students per year of the programme and 10 per group.

SER (p.46-47) outlines the specific laboratories and the list of equipment provided at the disposal of the programme is comparable to that in use in similar programmes internationally and it is noted that there does appear to be laboratories with equipment suitable for both teaching of engineering sciences and technologies and analytical laboratories in the AE programme area. SER (p.46-47) described the shared teaching spaces and general facilities such as library, study spaces, recreation spaces and design spaces. It is noted that in line with usual international norms that many of these spaces are shared with students from other study programmes. SER Table 18 (p.48) provides a very comprehensive list of the equipment used for IT services upgraded in 2022 for providing classes and students.

During the onsite visit the various workshops, laboratories, shared spaces, and IT Facilities were all reviewed. It was observed overall that these were well maintained building, there was adequate and well provided equipment, and there was good space for students to work individually, in groups or teams. Library facilities observed were in good condition, had a good stock of ATE books as well as available online books and services. During the onsite visit staff and students commented positively on the library and generally on facilities as well as the function and capability of the Moodle learning system for teaching and supporting learning. SER (p.50) also refers that there are direct subscriptions to scientific and technical periodicals in the areas of the study programme which are important in the context of the ongoing development in state of the art.

Expert judgement/indicator analysis

Overall, the buildings, facilities, and physical resources for the ATE area are well presented and maintained. They are adequate at present in size and type to cater for the existing cohort of students and capable of supporting the learning process and in line with international norms. The Moodle system is positively reflected by staff, and this is important as this system is invaluable in supporting students learning outside of hours and in helping guide self-directed learning through periodic assessment.

It was noted that there could be some improvements in the provision of Health and safety notices to staff and students and a stronger emphasis on the use of PPE in general through signage in workshops and laboratories. AC should conduct regular risk assessment in workshops and laboratories and ensure that it has a proper accident prevention system in place. This may already exist but was not shown to the panel during the visit.

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

Factual situation

Section 6 of the SER (p.46-51) provides details of various initiatives undertaken to address the upgrade requirements of AK facilities and lists upgrades projects, "Creation of a Regional Technology Centre" No VP3-2.2-ŠMM-15-K-01-014", 2014-2020 that led to the enhancement of the facilities through creation of a regional technology centre with a budget of 1.2MEuros, with 25% spent on buildings and 75% on equipment for the laboratories and workshops. This resulted in the acquisition of new technology specifically for this study programme as well as the modernisation of some of the generic engineering sciences laboratories of use to all programmes in the engineering/design / science domain areas.

Further evidence of upgrades in IT facilities through "Development of the Faculty of Information and Communication Technologies of Alytus College" ,No 09.1.1-CPVA-V-720-14-0003, (SER, p.47-48) outlines 0.5MEuro of investment in new IT infrastructure and SW to support learning in the college. In addition, SER (p.49) also outlines how the college engages with local enterprise in provision of training and in obtaining access to external modern facilities not available to the programme at AC campus. The impact of these technology enhancements is also briefly summarised in the SER on P49 of which the capacity for programme enhancement and development is linked to new technology acquisitions for AC.

SER (p. 50-51) outline improvements to centralised resources at the AC library and also the centralised online resources for learning support in books, periodicals, science databases as well as the purchases of specific items for the ATE study area. It is mentioned that these decisions are made in collaboration with the demands of the study area.

During the meeting with the management team the future development of the facilities for the programme were discussed the plans for acquisition of grant proposals for technology in electro vehicle, alternative fuel technologies and in engineering technologies was further presented.

During the onsite visit the process for staff to manage the specification of equipment, the specification of facility upgrades, the planning of these in terms of future programme development or the planning of these for research purposes was outlined. During the meeting with the teaching staff and the students their high satisfaction level with the quality of facilities was noted.

Expert judgement/indicator analysis

Overall, there appears to be a regular and well-funded enhancement of study facilities for the programme which will need to be maintained on an ongoing basis. The ATE programme area consists of a single programme at present and if this develops AC will need to invest in further facilities and equipment which is carefully planned in line with balanced regional needs.

During the meeting with alumni and stakeholders' opportunities for them to collaborate on and support specific facilities required for special aspects of programmes or regional development were

discussed. It was agreed that this can simultaneously create strong connections to enterprise in the regions for further refinement and development of facilities at AC. There may also be opportunity for future equipment donations to the college.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. The space allocated to the programme seems to be adequate and in line with international norms
2. There appears to be well equipped laboratories, workshops, and library facilities and these seem to have been modernised recently
3. There is a good level of satisfaction among staff and students on the availability, suitability and quality of the facilities at present.

(2) Weaknesses:

1. There may be future challenges to maintain equipment for practice based programmes and more so when the cohort size is small, a rolling plan will be required in this regard.
2. There is a need to significantly enhance visibility and importance of facilities associated with Health and Safety requirements. This includes review of fume extraction systems in workshops, additional health and safety notices and awareness training is required.

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

Factual situation

The AC provided information about the quality assurance systems in SER (p. 51-55). The report explains the roles and competences of the committees for the various tasks of quality assurance: Senate, Study Programme Committee.

On the faculty level, the Dean and the Council of the Faculty are responsible for the programmes and the consultation of students, other members of the faculty's community and social stakeholders. Furthermore, the SER underscores the active involvement of students in the decision-making processes of the AC's governing bodies and operational commissions across all levels.

Surveys are carried out regularly with graduates and employers; their feedback results are used for the improvement of specific study programmes. Taking part in the surveys is voluntary and anonymous.

Expert judgement/indicator analysis

The quality process and its regulation is good. The college demonstrates adeptness in making ad-hoc decisions effectively.

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

Factual situation

According to the AC, students, employers, graduates, teaching staff and administration representatives actively participate in the improvement of the study process.

Taking into consideration feedback from social stakeholders and the obtained survey results, the AC refines its plans and adjusts the content of study program, schedules, and study quality. It updates the content of study subjects to align with the needs of students and the requirements of the labour market as closely as possible. The evaluations presented play a pivotal role in enhancing the overall quality of studies while concurrently creating improved conditions for enhancing the competences of both current and future students.

Upon summarising information gathered from stakeholders regarding the implementation and evaluation of studies, significant changes were made to the ATE study program. Specifically, a majority of practical training and internships were shifted to the final year of studies to provide students with enhanced opportunities for establishing themselves in the labour market. Additionally, in response to feedback and preferences for increased course selection options, the block of elective courses underwent updates. Addressing expressed comments, themes related to carriage trucks were integrated into the course content of the study direction.

For example, the employers of the graduate students organise introductory visits and lectures for the students and teaching staff. They provide recommendations for the improvement of the study programme, traineeship issues and collaborate in final theses. Some employers donate equipment and cofinance material provision of the study laboratories and other teaching equipment.

The AC lays great emphasis on the fact that the teaching staff, being an internal party of stakeholders, improve the level of study quality on a day-to-day basis by updating the study courses, preparing educational literature and trying to convey the teaching material in a more interesting and understandable way. They are also involved in the preparation of the self-evaluation report.

External stakeholders appeared in the interviews in great numbers, showing great interest in participation. The alumni praise the Alumni association as very valuable. Alumni and employers expressed general satisfaction with the quality of the AC as a whole and with most parts of the programme.

Expert judgement/indicator analysis

Since the report and the interviews show full agreement on the relevant questions about stakeholder involvement, the expert panel do not have any critical remarks regarding this item.

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

Factual situation

Information collected and analysed every year includes number of students, employability of graduates, distribution of enrolled students by place of residence, dropout statistics, contracts with companies for internships, students employed in internship partners, evaluation of students' final theses etc. All information related to the study programme is published on the College website

Expert judgement/indicator analysis

The report and interviews reflect unanimous agreement on pertinent issues regarding information provision. Consequently, the expert panel has no critical remarks concerning this aspect. The experts commend the AC for effectively sharing the results of their quality assessment procedures with relevant stakeholders. This successful dissemination is recognized as satisfactory evidence of the college's commitment to transparency. However, there is a lack of evidence demonstrating clear and adequate assignment of responsibilities for decisions and actions within the AC.

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

Factual situation

The perspective of students on the quality of their studies is captured through surveys focusing on taught courses, especially the final year students' survey concerning the study program and potential career prospects. An analysis of data from 2020 to 2023 reveals that a significant majority of students express satisfaction with both the content of the courses and the quality of teaching, with 68.8% indicating satisfaction. Moreover, a substantial percentage, 70.3%, acknowledges the professionalism of their instructors. On average, 68.5% of students perceive course materials as modern and relevant, while 72.1% believe that the knowledge and skills gained during the course are pertinent for their professional endeavours.

Summarising the outcomes of the final year students' survey for the ATE study program about the study program and professional prospects, a positive evaluation of the study field's programs is evident. Students express a sense of readiness for their professional careers and would recommend the study program they completed to their friends, colleagues, and acquaintances.

Strengths and weaknesses of this evaluation area:

(1) Strengths:

1. Regular surveys are conducted with students, graduates and employers, with their feedback being utilised to enhance the study program.
2. The experts praise the AC for sharing the results of their quality assessment procedures with relevant stakeholders.

(2) Weaknesses:

1. There is insufficient evidence to indicate clear and adequate assignment of responsibilities for decisions and actions within the AC.
2. The experts interviewed alumni who were predominantly successful former students, highlighting their positive experiences with the AC. Survey findings also reflect positively on the program's quality. However, as the AC didn't furnish quantitative data on student participation in surveys and daily operations, experts stress the importance of ensuring students are adequately engaged in quality enhancement processes. It is not clear how many students were involved in that process.

IV. RECOMMENDATIONS

Evaluation Area	Recommendations for the Evaluation Area (study cycle)
Intended and achieved learning outcomes and curriculum	1. Implement a rubric system for final thesis evaluation, which entails defining the overall assessment as a composite score derived from multiple components. 2. The role of research methods should be emphasised more in the ATE program. Incorporate a course on "Introduction to Scientific Research" and reinforcing earlier groundwork on diploma topics.
Links between science (art) and studies	1. It is necessary to develop a concrete plan for growth of scientific activities in the field related to the ATE programme addressing capacity, financial viability, cooperation, and internationalisation. This plan should focus on: a. Increase in opportunities for more research active staff in ATE to undertake supervision of student projects on the programme and to further develop research output in the core ATE area. b. Development of a costed plan for prioritised research actions; the plan to address needs and availability of funding to match actions and any funding shortfalls from state funding. c. A set of actions to create new and enhanced links with national and international academic partners to enhance research cooperation and outputs for the programme area.
Student admission and support	1. Explore the possibilities of international cooperation that would offer the students of the ATE program more opportunities for international exchange and to expand directions for Erasmus+ exchange. 2. Create a strategic plan on how to make the most of the connection with Kaunas College in order to increase the number of students.
Teaching and learning, student performance and graduate employment	1. Promote ERASMUS activities effectively between students of ATE programme.
Teaching staff	1. It is recommended that AC review and if necessary, plan to increase the number of staff who are employed on an ongoing basis and who hold qualifications in ATE. This is to ensure that any risks that might arise for expansion of the programme or any risks due to loss of core staff is mitigated. 2. It is recommended to review the existing strategy for Erasmus Activities to increase the number of different staff who are engaging in Erasmus travel annually to increase cooperation between the ATE programme area and analogous programmes internationally.

Learning facilities and resources	3. It is recommended to plan and deliver further development of facilities to support capacity expansion of the ATE study area to meet any future growth in student numbers and to address facilities required for emerging technologies addressing net zero/carbon neutrality, autonomous vehicles, and new materials. 4. It is necessary to review the health and safety systems and processes in place to enhance staff and student safety and to increase awareness of mitigation of risks through mandatory training and mandatory use of personal protective equipment and use of appropriate significance in laboratories and workshops.
Study quality management and public information	1. There is a need to better divide responsibilities among personnel regarding study quality system. 2. Involve more students to QA system and collect more quantitative data which can help indicating some problematic areas.

VI. SUMMARY

The SER provides evidence that the college governance and program management are endeavouring to implement and enhance the ATE program in accordance with the recommendations from the last external evaluation.

The aims and outcomes of the ATE study programme are in conformity with the needs of the society and the labour market and are solidly reflected in the programme details. The general structure of the study programme ensures consistent development of competences of students. However, with the growing need for entrepreneurship skills in the job market, enhancing the ATE program with a greater emphasis on entrepreneurship and other transversal skills would prove to be a valuable addition.

The international mobility opportunities do not seem to be very appealing for first cycle students, who are also employed during their studies. There are opportunities to enhance the attractiveness of this to the benefit of the programme.

The ATE bachelor's degree study programme final theses are in compliance with the field and cycle requirements. However, there are some gaps in the quality management system of final works. According to experts, final work assessments are generally favourable. To enhance the quality of the final work, the following proposals are suggested:

- Implement a rubric system for diploma evaluation, which entails defining the overall assessment as a composite score derived from multiple components. These components include evaluating content, utilisation of literature, formatting, writing style, as well as responses to questions and discussion.
- It would be beneficial to improve quality by incorporating a course on "Introduction to Scientific Research" and reinforcing earlier groundwork on diploma topics.

The experts appreciate the efforts of the academic and administrative staff to support students and provide student-centric and flexible learning processes, thus encouraging students to become involved in the process of academic learning.

The strategy of teaching staff development and their involvement in the process of research and professional development in terms of industrial experiences on a regular basis is not obvious. To bolster the quantity of research projects, it is advised to foster increased international collaboration. This can be achieved by inviting more foreign researchers and lecturers, thereby enriching the academic environment. Creating an attractive setting for young researchers and lecturers is also paramount. Additionally, enhancing English language proficiency among ATE teachers is essential to facilitate effective communication and collaboration on a global scale.

Furthermore, to enhance teachers' competences, a more explicit organizational framework for professional development should be established. This ensures that efforts to improve teaching quality are structured and effectively implemented.

The panel also found that there are not enough supervisors for final theses and that an increase in the number of active supervisors by co-alignment of this role with active research staff in the study field will benefit the students, the programme, and the staff activities.

Social stakeholders actively engage in the assessment, enhancement, and quality assurance processes of the study program. Their involvement spans across various facets including participation in different activities and structures. Moreover, stakeholders play pivotal roles in Commissions, overseeing crucial aspects like students, competitions, and the defence of final theses. Their engagement creates the groundwork for the development and implementation of high-quality study programs, impacting the content of study subjects and the outcomes of studies. Collaboration with employers, professional associations, and scientific institutions has been instrumental in shaping and refining the ATE study program, ensuring alignment with evolving trends in the working environment. The inclusive approach empowers all stakeholders to contribute meaningfully to the enhancement of AC activities, fostering a culture of continuous improvement.
The instruments and processes the AC uses are generally well-developed and are suitable for improving the quality of teaching and program implementation. The AC management and staff convinced the panel that all groups are familiar with the instruments and processes and use it in the way the report describes. The alumni interviewed by the experts were mainly successful former students emphasising the positive experience with the AC. The surveys also show good results as to the quality of the programme. Since the AC did not provide quantitative figures about the participation of students in the survey and day-to-day processes, the experts express the necessity for the AC to check whether the students are really involved in the quality improvement processes in a sufficient way.

Expert panel chairperson signature: