STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Šiaulių valstybinės kolegijos

STUDIJŲ PROGRAMOS

AUTOTRANSPORTO ELEKTRONIKOS (653E21006)

VERTINIMO IŠVADOS

EVALUATION REPORT

OF *MOTOR TRANSPORT ELETRONICS* (*653E21006*)

STUDY PROGRAMME

at Šiauliai State College

1. **Prof. Dr. Clive Neal-Sturgess (team leader)** *academic,*
2. **Mr. Ger Reilly,** *academic,*
3. **Prof. Marianna Jacyna** *academic,*
4. **Prof. Juri Lavrentjev,** *academic,*
5. **Mr. Gintaras Vilda,** *representative of social partners'*
6. **Ms. Monika Simaškaitė,** *students' representative***.**

Evaluation coordinator - *Mr. Pranas Stankus*

Išvados parengtos anglų kalba
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Vilnius
2015

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Autotransporto elektronika
Valstybinis kodas	653E21006
Studijų sritis	Technologijos mokslai
Studijų kryptis	Sausumos transporto inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirma
Studijų forma (trukmė metais)	Nuolatinė (3) ištęstinė (4)
Studijų programos apimtis kreditais	180
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Automobilių transporto inžinerijos profesinis bakalauras
Studijų programos įregistravimo data	2007-07-22, Nr. 1514

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Motor Transport Electronics
State code	653E21006
Study area	Technological studies
Study field	Transport engineering
Type of the study programme	College studies
Study cycle	First
Study mode (length in years)	Full time (3) Part time (4)
Volume of the study programme in credits	180
Degree and (or) professional qualifications awarded	Professional Bachelor in Automobile Transport Engineering
Date of registration of the study programme	June 22, 2007, No. 1514

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I. INTRODUCTION

1.1. Background of the evaluation process

The evaluation of on-going study programmes is based on the **Methodology for evaluation of Higher Education study programmes,** approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC).

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

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

On the basis of external evaluation report of the study programme SKVC takes a decision to accredit study programme either for 6 years or for 3 years. If the programme evaluation is negative such a programme is not accredited.

The programme is **accredited for 6 years** if all evaluation areas are evaluated as "very good" (4 points) or "good" (3 points).

The programme is **accredited for 3 years** if none of the areas was evaluated as "unsatisfactory" (1 point) and at least one evaluation area was evaluated as "satisfactory" (2 points).

The programme **is not accredited** if at least one of evaluation areas was evaluated as "unsatisfactory" (1 point).

1.2. General

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

No.	Name of the document
1.	College Strategic Plan; Short Medium and Long Term
2.	Faculty Strategic Plan
3.	College Quality Manual and Action Plan
4.	College Marketing Plan
5.	Department Action Plan
6.	Programme Action Plan

7.	College Staff Development Plan
8.	Individual Staff Development Plans and Records of Attendance at Training Events
9.	Programme Handbook
10.	Placement/Practice Handbook
11.	Internal College Thesis Procedures Document
12.	Standard Textbook for Thesis Planning and Preparation
13.	Procedure for Evaluation of Recognised Prior Learning
14.	Minutes of Programme Committee Meetings/Actions
15.	Programme Theses and Evidence of Coursework
16.	Evidence of Coursework Completed in Various Languages

1.3. Background of the HEI/Faculty/Study field/ Additional information

Siauliai State College (SSC) is a higher educational institution in Lithuania. The college has two faculties in (1) Business & Technology and (2) Healthcare. The college governing structure comprises of College Council, Academic Council and the College Director. The two faculties are organised under the direct management of the 3 Deputy College Directors who have responsibility for Academic Activities, Strategic Development and Infrastructure.

This programme which is delivered in part time and full time mode is based in the Transport Engineering Department which is organised in the Faculty of Business & Technology. This programme was approved and registered on 22 June, 2007 by the Ministry of Education and Science of Lithuanian Republic, Order No. ISAK-1239, and this is the first occasion that this programme has been externally evaluated. The main aim of the programme is to educate specialist engineering professionals who can manage and conduct the installation and maintenance/repair of electronic systems in motor vehicles which travel on land.

In preparation for this assessment SSC organised a self-assessment working group under the order of the College Director to conduct the relevant internal self-assessment and to prepare a self-study report for the assessment process. Under the guidance of the Centre for Quality Assessment in Higher Education the self-assessment group began work in January 2014 and completed its work with the submission of the self-study report at the end of April 2015. The self-study document is well prepared and provides satisfactory details of the self-study process in all of the key areas of the programme and college activity that require evaluation as part of this process. It is informative and at the evaluation meeting with the self-study group they were able to supplement this information with additional analysis relevant to the evaluation process which will lead to future programme enhancement.

1.4. The Review Team

The review team was completed according to the *Description of experts' recruitment*, approved by order No. 1-01-151 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on *13th of October 2015*.

1. **Prof. Dr. Clive Neal-Sturgess (team leader)** Emeritus Professor of Mechanical Engineering, University of Birmingham (UK),
2. **Prof. Juri Lavrentjev,** Professor of Automotive Engineering, Department of Machinery, Tallinn University of Technology (Estonia),
3. **Prof. Marianna Jacyna,** Professor at Warsaw University of Technology, Faculty of Transport (Poland)
4. **Mr. Ger Reilly,** Head of School, Mechanical & Design Engineering Dublin Institute of Technology (Ireland),
5. **Mr. Gintaras Vilda,** Director of" Lithuanian Engineering Industry Association" (Lithuania),
6. **Ms. Monika Simaškaitė,** Students representative from Kaunas University of Technology (Lithuania)

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The self-study process for this programme and the details in the module descriptors and final thesis show that overall the programme aim and the learning outcomes are all very well aligned with each other. The stated aim of the programme provides a detailed contextualisation of the programme with respect to the main requirements for learning outcomes of the professional bachelor study cycle.

To align the learning outcomes of the programme with the needs of industry and local businesses SSC initially used surveys at the programme development phase and these were subsequently amended in 2011 and 2013 using working groups derived from the Šiauliai Automotive Service Association. Furthermore, the college has paid heed to the Motor Transport Electronics Engineers Training Standard in determining the output skills for the graduates for the programme. From the self-study report and the meeting with social partners there was evidence of their involvement through business groups in college meetings which provides the college with feedback on this programme and the required graduate attributes which drive the learning outcomes. This is commendable. From Staff CVs provided in the self-study report and from the meeting with the teaching staff information provided demonstrated that many of the staff are members of the Lithuanian Association of Lecturers and Teachers of Automotive Transport and that their involvement in this association provides a perspective on the academic relevance of the programme learning outcomes when compared to the activity of other colleges.

In the self-study report the aim and learning outcomes are well mapped to the main academic requirements of the professional bachelor study cycle. At the evaluation meeting with the self-study group evidence was provided that the group had compared the programme and learning outcomes to likewise programmes in Klaipeda, Kaunas and Tallinn to verify its consistency with other national and international programmes. It can be concluded that SSC takes necessary steps to ensure that the aims and learning outcomes are in line with and relevant to the requirements for a programme at the professional bachelor level.

The programme was adapted to the ECTS system in 2011 and was created in line with the so called ‘Dublin Descriptors’ and relevant EU programme implementation guidelines such as the ‘European Higher Education Area Qualifications Framework’ and the ‘European Qualifications Framework for Lifelong Learning’. In the case of the study credit allowances for main study areas of the programme, these are defined by maxima and minima values. The programme was developed in accordance with the national requirements stipulated in the

Lithuanian Description of Study Cycles, Ministerial Order No. V-2212 and is within the ranges in all cases as outlined later in this report.

The following remarks are for consideration to enhance the aim and learning outcomes:

1. The English translation of the programme aim is quite long as and this could be more concisely worded.
2. The English translation of programme learning outcomes 1, 3, 5, 7, 8 needs to be reviewed for clarity of explanation. In addition, there is scope for the merging of programme outcomes 4 and 6, and also of programme outcomes 7, 8 and 9 to improve overall coherence.
3. There is a module on work safety in the programme but this does not appear to have been explicitly mapped to the programme learning outcomes. This is an important study area and needs to be appropriately placed in context in term of relevance of learning outcomes and the development of the professional engineer.

Overall the programme name and its aim and learning outcomes are coherent and meet the requirements for a programme which is graduating students with theoretical knowledge and practical skills in the field of Motor Transport Electronics. The aim and learning outcomes are well supported by the content of the programme both in terms of the structure, content and the teaching. The assessment of learning outcomes is thorough and the described learning and assessment methodologies are well detailed and are appropriate.

2.2. Curriculum design

There is evidence from the self-evaluation report and annex with module descriptors that the programme meets the legal requirements for a programme of this type. As an indicator of compliance; in full time mode the programme consists of 180 ECTS of which 141 ECTS/ (79%) is allocated to study field subjects/practices and the remainder is allocated as follows: 15 ECTS/ (8%) for general subjects, and 24 ECTS/ (13%), for elective subjects. The programme comprises 4800 hours of learning in total with ~ 2400 allocated to each of direct contact learning and self-directed learning and 1648 hours or 61 ECTS of learning is for college practical/laboratory work which includes 800 hours of educational and professional work practices equivalent to 30 ECTS. These key metrics show the programme meets the criteria for professional bachelor study cycle as stipulated by the Ministerial Order No V-501. The evaluation shows that the programme structure is compliant for both full-time and part-time modes. Evidence was provided that the college pays attention to recognition of prior learning (RPL) as a means of advanced entry and the RPL process which is based on applicant competences and award of equivalent credits was reviewed as satisfactory at the evaluation meeting.

The subject matter is coherent with the programme aim and the learning outcomes taking into account the legal requirements. In the discussion on the programme structure at the evaluation meeting with the teachers it was clarified that the students on the programme are firstly required to study background science and fundamental principles that underpin the specialist subjects and elective subjects which are covered in the later years of the programme. This gives the students an opportunity to transition from what they have learned in a typical general education at second level to the more specific learning on new subject matter in their chosen study field at third level and is commendable. From the assessment of the modules in the evaluation process there is no significant evidence of overlap in subject matter.

Student spend a large proportion of the total study time on college based laboratory practice or practical work, or in work practice in companies. This is commendable as it reinforces the theoretical learning. The work practice in local companies creates a very tangible benefit of connecting the student to the company where they can also assess their own ability in a real work environment. Additionally, the overall design of the programme is such that the students taking the programme generally cover an appropriate range of modules supporting their learning on knowledge, research, specialisation and personal skills as required under legislation for this programme type.

There is a wide variety of study modes being employed with students on this programme from individual to group learning and from theoretical to practical working. This is good and there is evidence from the module descriptors that teaching staff are using a variety of methods to assess module learning outcomes. This is important as students learn in different ways and some forms of assessment suit some students better than others. Therefore, it can be concluded that students have a fair chance to prove their ability across a range of assessment methods in each module. At the meeting with students and alumni we learned they are engaged in various learning processes including active learning, peer learning and peer and individual assessment all of which is supported by use of web based resources, Moodle and Google Cloud.

From the various samples of coursework provided at the evaluation meeting in the laboratories and on request from staff and from our discussion with students there was evidence of detailed written and oral feedback with opportunities for additional/optional consultations with teaching staff. This is very important as it supports and encourages students to understand their own progress and take ownership of understanding how they are performing.

The spread of the study programme across the three years is comparable to that used in all other EU countries; ie students take 60 ECTS / Year of study in FT mode. Additionally, the learner is expected to spend typically 26 hours for every 1 ECT which is close to norms in the

EU. In addition, students are expected to spend about 50% of their study time on independent work which is in line with similar programmes in other EU countries for a programme of this type, and this shows that the college and its staff take cognisance of international practice in this programme which is good. Therefore, the programme evaluation shows that the scope of the programme for both full time and part time modes is correct and adequate.

The following additional analysis is specific to the overall content of some modules and areas of study in the programme.

1. The final two practice elements are very important to students as a means of helping them to transition from student to graduate engineer and at the meeting with social partners they emphasised that they were very happy with knowledge and skill level displayed by students while on these work practices as a precursor to employment.
2. There is only one module in the programme that was found to contain subject matter on business management and only in a general sense rather than applied to businesses in the motor vehicle industry. In the same way there was no evidence of the student being required to study professional ethics either in an engineering or business context. Consideration should be given to how this could be dealt with in an appropriate module. This is a core characteristic of any professional technologist or engineer.
3. There was evidence from the various documentation received at the evaluation meeting and from the discussion with teaching staff and students that the thesis process is well documented and well-structured with documented assessment processes which provides a good mechanism for evaluation of the students' capacity to draw on various content to solve real world problems. This detailed process is commendable.
4. With regard to new and emerging technologies, there is one module that deals specifically with Smart Automobile Systems though it would appear these are associated with legacy technology and this should be reviewed. There is also some scope for additional emphasis on the effects of auto electronic component design and manufacture on the environment.
5. Apart from modules devoted to language study; it was noted at the evaluation that some coursework is supported, delivered and assessed through different languages. However, there is scope for further opportunities in this regard to meet the demands of students for international language activities in the programme.

2.3. Teaching staff

The percentage of staff required to teach the programme vis-à-vis field study subjects and level and range of experience is adequate and in line with requirements. Additionally, there

is evidence from the evaluation meeting, the self-study report and the CVs of staff that there is a strong emphasis on the programme being resourced by teachers with a high academic qualification and relevant experience. There are 19 staff who have a qualification of master's degree or equivalent/higher and there are 2 associate professors involved in delivering the programme. The student teacher ratio (STR) which is 18.9 for this programme is in line with the OECD average for programmes of this level and type. The age profile of staff is in line with requirements of a programme of this type and there is a good concentration of teachers in the main age categories. This minimises the risk to the programme from loss of teachers with high academic ability and programme specific knowledge. The accumulated teaching experience of the staff is high and this creates a stable learning environment for the students and the programme.

The college places a good emphasis on teacher academic development and supports this through funding staff participation in conferences, seminars and internships. Staff are invited to participate and attend technology update training at local companies when appropriate. From staff CVs there is also evidence of staff engaging in pedagogical seminars and updating of their teaching skills. At the evaluation meeting with senior management the overall college strategy for staff development was presented and supported with documented evidence. This cascades down to department level for development of individual staff plans to meet personnel requirements and needs of the programme.

There is relatively low staff engagement in EU Programmes or events and Erasmus and low levels of teacher mobility to English speaking countries. At the meeting with senior management the College Head for Academic Mobility outlined that efforts to enhance staff mobility are ongoing and that there is evidence of greater participation of staff in EU projects in teaching and administrative staff categories; yet this is still low relative to before. The college needs to further review its strategy and some additional resource or incentive could be provided to motivate outward mobility with emphasis on working with sympathetic partners.

Given the high teaching and contact hours load on staff there is likely to be a difficulty for substantial engagement in fundamental research. Therefore, staff engagement in activities outside teachings tends to be in consultancy or expert evaluator roles. It is however commendable to note that there are some staff who are research active and preparing conference and journal papers and the college should consider how it might be able to divert more resources to support this activity and further encourage staff to take on their own self-directed study and learning in this regard. One staff member provided evidence of how he had used the process of completion of his PhD to embed applied research elements in his subject matter and teaching

content and also in the development of programme projects and theses. The College Head of Research provided an overview of the difficulties the college faces in competing for national research funds at the evaluation meeting but also provided a synopsis of the attempts made by staff to attract alternative funding from local businesses. The college is making sincere efforts and perhaps could review how it could further enhance the activity in this area through an inward staff scholarship/exchange or through small college bursaries or incentive actions for staff engagement in research.

2.4. Facilities and learning resources

The college has adequate classrooms of appropriate size at its disposal to support this programme. The typical class size is of the order of 30 to 40 students. At evaluation there was evidence that classrooms had capacity to accommodate between 30 and 70 students are and laboratories or workshops accommodate between 15 and 30 places in laboratory facilities. Additionally, there are distance learning facilities to support the programme when required by students. Overall student facilities in the college library are good and students have access to computers, printers and internet for research and report writing or self-study work. At the evaluation there was evidence of available self-study and group study rooms which are of good quality.

The self-study report gives a very good overview of the status of the teaching materials at the disposal of the programme for supporting student learning. The library facility which was reviewed on the day of the evaluation is very attractive for students and there was evidence of an adequate stock of books. These are principally located in the main college library where there is also access to open databases and publications such as journals and text books. This is commendable and in line with what would expect from best practice for a third level college. The student usage of books is recorded and the resulting data is provided to programme committees to monitor student engagement in self-study activities.

A very extensive and quite well appointed set of workshops and laboratories were viewed on a tour of the facilities during evaluation. Overall in the laboratories there is a good range of appropriate equipment which is industry standard and available for use on this programme. The equipment is well maintained and there is evidence in the principal workshop of a range of electronic diagnostic equipment from a number of manufacturers/suppliers including Bosch, and Auotodate and ESItronic databases which is commendable. The electronics, control and physics laboratories included relevant preparation and test equipment, oscilloscopes, prototyping boards and control panels. In general, there was also evidence of good IT

classrooms and CAD rooms available for use on the programme with proper drafting machines for producing working plots.

All of the facilities were well maintained and very bright and were attractive to students in terms of places of study and learning. In workshops it was noted that although there was some evidence of signage with necessary health and safety procedures that there was little overt signage warding of hazards or dangers associated with industrial standard equipment. This needs to be addressed as a matter of priority as a critical factor in ensuring that all students take note and responsibility for safe working practices at all times.

The external and internal work practice elements of the programme are very commendable and account for a good proportion of the total programme in 4 practice elements. At the evaluation handbooks and logbooks which are used to guide students while on practice were displayed. Overall it was established that this aspect of the programme is well documented. At the evaluation no evidence was provided of college based formal training or instructional events for social partners supporting practice. However social partners advised that generally practice is well supported by the college.

2.5. Study process and students' performance assessment

The admission requirements for the programme are in line with the legislation defined by the Order of the Minister of Education and Science of the Republic of Lithuania "On Setting of Minimal Indicators of Learning Outcomes". The total number of 1st choice applicants is consistent showing demand for the programme among applicant students. However, the range of the competitive score of all entrants to the programme is quite large with diversified learning requirements which creates a challenge for teachers. The current attrition rate of ~20% to ~30% in Year 1 is quite high. To address this, issue the college provides additional tuition support to students at the start of Semester 1. This support is targeted based on screening tests conducted by staff with students. However, this needs to be further reviewed and other options to alleviate the examination load on students could be considered. It would also appear that students take typically one examination per module at the end of each semester. Perhaps the programme could consider changing this in the first year of the programme to reduce the examination load on students. The analysis of final year project scores indicates that very few students appear to fail this element of the programme with most performing well to very well. There was some evidence from the evaluation meeting of overlap in thesis topics and this may be a contributing factor to high scores and this should be reviewed.

There is a number of students participating in applied research activities and also scientific and engineering competitions. This creates a range of higher self-directed learning skills among graduates as well as enhancing their skills and knowledge in problem solving. The number of students who participate in mobility and Erasmus based activities is quite low. The programme committee will have to find ways to encourage an increase in this activity. However, it is worth noting that students who participated in the evaluation process had excellent English language skills which was very positive.

The college is supporting the welfare of its students on this programme by helping to administer government grants and supplementing this with college scholarships to students in need of additional support. This is very commendable and appears to be structured and varied so that there are a range of different grants and supports in place to meet varying requirements.

From the module descriptors there is evidence of a very good range of assessment methods being used throughout the programme to match the varied learning and teaching methods in use. As already mentioned this is very commendable. Assessment methods in use are appropriate for the learning outcomes of modules and for the overall assessment on the programme.

From the self-study report and evaluation meeting it is clear that there is a high employment rate for graduates even from an early stage in the programme. This indicates that local employers are very happy with the quality of the students and graduates and with their knowledge and skills. From our meeting with alumni and social partners we found that there is a good correlation between the graduate attributes and the needs of business locally. It is also encouraging to see that between 10 and 15% of graduates go on to further study which underlines the quality of the programme and the ability of its graduates to migrate to higher learning.

2.6. Programme management

This programme is managed by the Transport Engineering Department under the auspices of the Head of Department. The strategic development of the programme takes direction from the strategic plans of the College. The Faculty and the Department holds regular meetings to allow teacher input on the programme and to monitor student performance and deal with organisational matters. All of these plans were well prepared with clear tasks, responsible persons, deadlines and status of actions recorded providing good evidence of follow through on actions.

Additionally, there is a programme monitoring committee with students and employer representatives who contribute to the direction of the programme and assist in the decision making process. Some changes to the programme for instance have occurred at students' requests such as the provision of additional foreign language choices for students. The college makes all relevant documents for the regulation of the programme available publically and the management of the programme is in line with the requirements of the documented quality management process of the College.

There is evidence from the self-evaluation report that revisions to the programme are undertaken in response to the need of staff, available resources and the programme of study and its assessment. This is commendable and actions to address the concerns that have been identified are appropriate and have had positive impact; this is very important especially in the context of ensuring the requirements of employers are implemented where possible. In addition, in line with standard review intervals the programme is evaluated and adapted as appropriate from time to time. At the evaluation meeting with teachers and students evidence was provided that the process of staff-student engagement is well managed in both formal and informal modes for dealing with aspects of programme delivery/content and regular feedback. The process of work placement is well documented. However as previously recorded there was no evidence of formal training or information events for employers to advise them of the necessary supporting structures and assessment requirements for placement. Perhaps this could be addressed annually to enhance this aspect of learning even further.

The college utilises a quality management system based on ISO9001:2008 and the principles of EFQM. It appears that while the system is generally functioning well there are aspects of the process which have been inhibited by the lack of appropriate IT system to streamline quality monitoring and management. The college should consider how this needs to be addressed to make the system fully robust. At the evaluation meeting the College quality manual and action plans down to department and programme level were provided. Other evidence was provided during the meeting with the SER group and students of the formal involvement of students in quality process through end of semester questionnaires and programme meetings.

Overall the programme is well managed and it the quality management process is based on continuous improvement and is manifest in the quality department who are independent of academic units which is commendable. Key actions of the quality management process are underpinned by planning, analysis, discussion and problem solving in department and programme levels meetings and committees which is satisfactory.

2.7. Examples of excellence

From the evaluation process the following areas of the programme and its management provided good examples of excellence:

1. The overall strategic planning and management process with follow through on action planning to departmental/programme level is very well devised, specified and managed by the quality management system and staff.
2. The study process and the combination of informal and formal integration of supports for students is excellent. An example of this is the support system for students who have achieved lower competitive scores that the mean or maxima, of their student colleagues.
3. The process of staff engagement in personal development in technical and pedagogical areas is well planned and supported by management is there is evidence of full engagement in this process by staff and some staff gave evidence of how they have used their PhD research to the benefit of their teaching and students.
4. The study facilities, laboratories and workshops for the programme are of a very high standard and include modern technology and equipment which is well maintained and spacious.

III. RECOMMENDATIONS

1. The programme committee should review the programme aim and learning outcomes to develop more concise statements and improve their overall coherence and also address the absence of health and safety and ethics from the programme learning outcomes
2. The programme committee should review how it can introduce some additional content on business management which is specific to transport company requirements and also consider how additional language options can be supported for students.
3. The programme committee could look to the future and bear in mind the implications of new technologies in the motor vehicle industry. In this regard the programme committee could look at:
    a. Recent case studies on emissions testing and fall out for the companies and general public from this process.
    b. Automobile electronics and hybrid vehicles;
    c. Legislation for the environment which will impact the industry in the future;
    d. Vehicle communication, 'the internet of things' and technologies like in car communication or augmented driver feedback systems.
4. The college should devise and deliver a short course for training and informing all companies and their employees who are supervising students on placement.
5. There is a need to further enhance warning signage in the workshops especially where there is medium to high risk threats posed to student while using equipment or facilities.
6. The college needs to review how it can further target resources to dealing with the key drivers of student drop out and attrition.
7. The college needs to consider how it can plan and motivate additional staff and student mobility opportunities.

IV. SUMMARY

From the evaluation we observed that there is a strong connection with the college and the local social partners and business community. This links well into the programme and its relevance to the social partners who commented highly on the quality and relevance of graduates. The students and the alumni were very supportive of the college and the teaching staff and complimentary of their study process. There is a high level of support for students in terms of the study process and also the provision of grant allocation and college scholarships to support studies. Overall the strategic planning process feeds well into the programme and the committee have applied best practice in the development of learning outcomes and the module content. The process of assessment and feedback is well organised and there is evidence that this is clear and robust. The facilities are modern and well maintained. The staff engagement in continuing professional development is exemplary. There is a need for some additional review of the issues affecting retention to ensure that the resources allocated to support weaker students are well targeted to optimise the results. There is scope for a review of the theses topics on this programme to address any issues that may arise with replication of topic ideas and the effect of this replication on overall results. There was some evidence that the results for thesis were skewed towards higher overall results. This college offers some other study programmes in closely related transport engineering areas and the college should monitor review the marketing process regularly to ensure that there is adequate clarity for prospective students between study options.

V. GENERAL ASSESSMENT

The study programme *Motor Transport Eletronics* (state code – 653E21006) at Šiauliai State College is given positive evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Teaching staff	4
4.	Facilities and learning resources	4
5.	Study process and students' performance assessment	3
6.	Programme management	4
	Total:	**21**

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;
2 (satisfactory) - meets the established minimum requirements, needs improvement;
3 (good) - the field develops systematically, has distinctive features;
4 (very good) - the field is exceptionally good.

Grupės vadovas:
Team leader: Clive Neal Sturgess

Grupės nariai:
Team members: Marianna Jacyna

Juri Lavrentjev

Gintaras Vilda

Ger Reilly

Monika Simaškaitė

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VI. APIBENDRINAMASIS ĮVERTINIMAS

Šiaulių valstybinės kolegijos studijų programa *Autotransporto elektronika* (valstybinis kodas – 653E21006) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	4
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	4
	Iš viso:	**21**

* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)
2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)
3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)
4 - Labai gerai (sritis yra išskirtinė)

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IV. SANTRAUKA

Atlikdami vertinimą nustatėme, kad egzistuoja stiprus kolegijos ir vietos socialinių partnerių bei verslo bendruomenė ryšys. Tai daro gerą įtaką studijų programai ir jos aktualumui socialiniams partneriams, kurie teigiamai atsiliepė apie absolventų parengimo kokybę ir įgytų žinių aktualumą. Studentai ir baigusieji labai palaiko kolegiją ir dėstytojus, teigiamai vertina savo studijas. Kalbant apie studijų eigą, studentams teikiama aukšto lygio pagalba, skiriamos dotacijos ir kolegijos stipendijos studijoms remti. Apskritai, strateginio planavimo procesas puikiai tinka programai, o studijų komitetas pritaikė geriausią praktiką įvardydamas studijų rezultatus ir rengdamas dalykų turinį. Vertinimo ir grįžtamojo ryšio procesas organizuojamas gerai, jis aiškus ir veiksmingas. Materialioji bazė šiuolaikiška ir gerai prižiūrima. Personalo dalyvavimas tęstiniame profesiniame tobulinimesi pavyzdinis. Reikia papildomai peržiūrėti klausimus, kurie turi įtakos studentų išsaugojimui, siekiant užtikrinti, kad ištekliai būtų skiriami silpniau besimokantiems studentams ir tinkamai panaudoti optimaliems rezultatams pasiekti. Būtų galima peržiūrėti baigiamųjų darbų temas, siekiant spręsti klausimus, kurių gali kilti kartojant pagrindines temas, ir tokio kartojimo įtaką bendriems rezultatams. Yra keletas atvejų, kuomet baigiamųjų darbų vertinimas buvo iškreiptas ir suteiktas aukštesnis įvertinimas. Kolegija siūlo keletą kitų studijų programų, glaudžiai susijusių su transporto inžinerijos sritimi, todėl reikia stebėti ir nuolat peržiūrėti rinkodaros procesą, kad būsimieji studentai pakankamai aiškiai suvoktų studijų pasirinkimo variantus.

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III. REKOMENDACIJOS

1. Studijų programos komitetas turėtų apsvarstyti programos tikslą ir studijų rezultatus, suformuluoti glaustus teiginius ir pagerinti jų bendrą rišlumą, taip pat atkreipti dėmesį į tai, kad programos įvardytuose studijų rezultatuose nėra sveikatos, saugos ir etikos klausimų.
2. Studijų programos komitetas turi apsvarstyti, kaip papildomai įtraukti verslo vadybos temą, kuri yra specifinė atsižvelgiant į transporto bendrovių reikalavimus, taip pat numatyti, kaip studentams suteikti papildomų užsienio kalbų mokymosi galimybių.
3. Studijų programos komitetas galėtų žvelgti į ateitį ir įvertinti naujų technologijų poveikį automobilių transporto priemonių pramonei. Šiuo klausimu studijų programos komitetas galėtų atsižvelgti į:
    a. naujausius išmetalų bandymų tyrimus ir neigiamą išmetalų poveikį įmonėms ir plačiajai visuomenei;
    b. automobilių elektroniką ir hibridines transporto priemones;
    c. aplinkosaugos teisės aktus, kas turės įtakos pramonei ateityje;
    d. transporto priemonių ryšį, daiktų internetą ir technologijas, pavyzdžiui, tai automobilių komunikacija arba papildytos vairuotojų atsiliepimo ir grįžtamojo ryšio sistemos.
4. Kolegija turi parengti ir suorganizuoti trumpą mokymo ir informacinį kursą visoms įmonėms ir jų darbuotojus, kurie yra studentų praktikos vadovai.
5. Reikia tobulinti įspėjamuosius ženklus darbo seminaruose, ypač ten, kur studentams kyla vidutinės ir didelės rizikos pavojus naudojant įrangą ar įrenginius.
6. Kolegija turi apsvarstyti, kaip skirstyti išteklius sprendžiant svarbiausius studentų iškritimo ir jų skaičiaus mažėjimo klausimus.
7. Kolegija turi apsvarstyti, kaip numatyti papildomas personalo ir studentų judumo galimybes ir juos motyvuoti.

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