



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

UTENOS KOLEGIJOS
STUDIJŲ PROGRAMOS *ELEKTROS ENERGETIKA*
(valstybinis kodas - 653H63002)
VERTINIMO IŠVADOS

**EVALUATION REPORT
OF *ELECTRICAL ENERGETICS***
(state code - 653H63002)
STUDY PROGRAMME
at UTENA COLLEGE

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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Elektros energetika
Valstybinis kodas	653H63002
Studijų sritis	Technologijos mokslai
Studijų kryptis	Elektronikos ir elektros inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3 metai), iššėstinė (4 metai)
Studijų programos apimtis kreditais	180 ECTS kreditų
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Elektros energijos profesinis bakalauras
Studijų programos įregistravimo data	2010-02-01

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Electrical energetics
State code	653H63002
Study area	Technology sciences
Study field	Electronics and electrical engineering
Type of the study programme	Higher Education College Type
Study cycle	First Cycle Studies
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 of Electrical Energy
Date of registration of the study programme	1 st February 2010

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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.	Implemented recommendations made by the previous evaluation team

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

In the Lithuanian economic structure issues of generation, transmission and distribution of electrical energy as well as its rational consumption are of great significance. Utena is an engineering developed industry region, where the professionals of the study field of electronics and electrical engineering are urgently under demand by the region.

Utena College was established in 2000 by combining Utena Medical and Business colleges. This Electrical Energetics study programme started in the year 2010. There is a possibility to choose full and part-time studies for this programme. The current programme has two specializations to choose from. The Programme was previously evaluated in 2012 and received three years of accreditation. In 2012 it was revised in terms of its match to international recommendations and national legislation.

The college has close relations with the local industry. Nearly all students have their training and work places there, both during and after studies. Local employers are interested to see more engineers graduating from this programme who would acquire solid knowledge basis in this particular field.

The 2015 external evaluation of this Study Programme (state code 653H63002) has been conducted by an international expert group through analysis of the self-evaluation report and meetings with the administrative staff, the group which was responsible for the preparation of the self-evaluation report, teaching staff of the Programme, students and graduates of the Programme, and their employers.

1.4. The Review Team

The review team was completed according *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 October 14, 2015.

- 1. Prof. dr. habil. Krzysztof Kozłowski (team leader),** *professor at Poznan University of Technology, Poland;*
- 2. Doc. dr. Sergey Shaposhnikov,** *associated professor at St. Petersburg State Electrotechnical University, Russia;*
- 3. Emeritus Prof. dr. Erkki Lakervi,** *professor emeritus at Helsinki University of Technology, Finland;*
- 4. Doc. dr. Gediminas Valiulis,** *vice-dean at Šiauliai University, Lithuania;*
- 5. Mr. Ignas Gaižiūnas,** *students' representative from Vilnius University, Lithuania.*

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The Electrical Energetics programme has two specializations: Electric Distribution Networks and Enterprise Electric Economy. The former is more related to electric distribution networks, the latter to the exploitation of enterprise electric networks.

There is data provided on Lithuanian labour exchange related to technicians in electrical engineering and the Utena region that are needed in the next decade, these aspects were discussed during the meeting with the social partners but there was no discussion how they focus on the aims given.

The programme character has a very long introduction in the SER and the aims of the study programme could be defined there in a clearer and more concise way. In addition to the primary aim (to train a highly qualified engineer of electrical energetics), many competences acquired (e.g. optimal and safe work) are listed, which in experts' opinion are surplus and not necessary in the definition of the aim. As a recommendation for the future, the programme aim should be formulated in more coherent way to be easier understood and accepted by stakeholders, especially secondary school graduates.

The targeted learning outcomes are challenging and versatile. They also are well presented. In addition to fulfilling formal requirements and recommendations they have been clearly related to the required competencies and study subjects (Annex 1). Especially trends in local employment market have been considered.

The programme aims and learning outcomes are publicly accessible (mostly in the college website and basic information in "AIKOS" information system). However, more proactive information events about the programme and future employment places could take place at schools. The programme aims and learning outcomes are compatible to the first cycle and the sixth qualification level of college studies.

Regarding the relation between learning outcomes and the results of most modern research, no clear evidence was shown to prove this matter (as it was stated in page 8 of the SER). Electricity generation, transmission and distribution are described as key elements of the current energy system that is naturally true. The learning outcomes are in balance with the expectations for professional bachelor degree level. They are assessed by teaching staff and social partners, some employees have informal contact with teaching personnel as well. Electrical Energetics as the name of the programme sounds a bit strange but at the same time it does provide rather clear information about the professional field. For future considerations – Electrical Energy Engineering or just Electrical Engineering might be more modern alternative

names. Also for future consideration – the intended learning outcomes of the study programme could be formulated using EUR-ACE methodology for the engineering study programmes.

As it was briefly mentioned, the self-evaluation report is long and includes many descriptions that are not so relevant there. E.g. the innovation of extracting energy from salt melting in freshwater was described although no own activities in the study programme were shown in this interesting field.

Despite some minor drawbacks, based on the SER and discussion with students, graduates of the programme and social partners, the evaluation team can confirm that the programme aims and learning outcomes are achievable, publicly available and consistent with college studies and the level of qualification offered.

2.2. Curriculum design

The study programme Electrical Energetics was designed following General Requirements Regarding the Degree Study Programmes of the First Cycle and Integrated Studies, approved by the Minister of Education and Science of the Republic of Lithuania. The curriculum design meets all legal requirements.

The volume of the study programme is 180 credits. General college subjects make 15 credits (8.3% of all the study programme volume), subjects of the study area including practices and final work make 144 credits (80% of all the study programme volume), specialisation chosen alternatively by a student and the final work cover 12 credits each (6.7% of all the study programme volume), the volume of electives is 9 credits (5% of all the study programme volume). Practices of professional activity cover 30 credits (15% of all the study programme volume).

Most of study subjects are spread quite evenly and their progress is logical, their themes are not too repetitive, and the content of the courses is consistent with the type and level of college studies.

The number of individual topics in courses is very high and many courses cannot thus be so deep. E.g. thermodynamics appears very shortly and power generation seems to have a smaller role in courses than expected, considering the demands in Utena region. It seems that all courses cannot be based on the most recent scientific achievements due to various practical constraints including the staff and laboratories. E.g. in electric power systems area modern topics like distribution automation, information systems and smart grids have minor attention. Lots of attention is given to practical knowledge and skills, which is highly important in college level studies. Nevertheless, the content and scope of the offered list of courses are suitable for promoting the desired learning outcomes.

Two specialisations are mentioned in the SER. By choosing the specialisation of Electric Distribution Networks, one would be able to project, automate and exploit electricity distribution networks, and by choosing the specialisation of Enterprise Electric Economy, one should be able to project and exploit electric network of an enterprise. In practice, the latter is based on a rather conservative approach and currently has got no students.

Some study subjects could include more ICT (Information and Communication Technologies) and electronics linked topics (e.g. Automation of Electric Distribution Networks, Electrical Measurements, Electrical Drives and their Control). Some part of topics (as well as training equipment) is fully outdated and is not relevant nowadays, so there is a rather big room for changes and improvement.

Scientists from outside of Utena College (for example from Vilnius Gediminas Technical University and Kaunas University of Technology) introduce students to the most recent findings of scientific research and scientific innovations (SER p. 16). However, this could not be verified during the site visit and it is not clear if this influence will lead to changes in the course contents.

Regarding the further improvements in the curriculum, the graduates expressed the need of more work on getting practical skills and knowledge in programming. They also hoped that more attention would be paid for courses that support technologies in combined heat and power generation that is important in the region.

The whole volume of the subjects of general education and the subjects of study fundamentals is similar to other Lithuanian HEIs that offer study programmes in electrical energy topics. It provides students with opportunities to move from one HEI to another and to have their competences acknowledged and approved.

It should be noted that recommendations of previous evaluation concerning the curriculum design were implemented. General subjects “Sociology”, “Fundamentals of Economics”, “Fundamentals of Management”, “Basic of Law” now have more topics related to electrical power engineering. Due to the fact that the programme students speaking Russian, the recommendation concerning Russian language removal from the programme, as the previous experts recommended, cannot be implemented at the moment. Moreover, the College wants to attract Russian-speaking students into the programme, and this language should not be removed.

2.3. Teaching staff

The teaching personnel have reasonable teaching and practical experience. Most courses directly related to electrical energy seem to be delivered by teachers of age 60 and more. During

the evaluation period there were 15 full-time teachers employed in the study programme of Electrical Energetics, which makes 71.4% of all the teachers employed in the study programme. Six teachers (28.6%) worked part-time. All teachers have sufficient experience, both pedagogically and in the speciality. According to SER, during the evaluation period in the programme there were 5 teachers with PhD degree in the study programme of Electrical Energetics, which makes 23.8% of all the teaching staff of the study programme. Two researchers were fully employed at Utena UAS, and three researchers were working part-time. They taught 8 subjects which covered 42 credits, i.e. 36.8 % of the whole volume of the subjects of the study field. This number meets legal requirements (article 28 of Description of General Requirements for the Degree-awarding First Cycle and Integrated Study Programs).

The rotation of the teaching staff during the evaluation period was quite small. According to SER, only few teachers have left and entered the programme. Nevertheless, the expert team thinks that the qualification and the number of the teaching staff are quite adequate to ensure learning outcomes. However, the age of leading teachers directly related to electrical energetics (e.g. A. Remeikis, J. Dumbrava, P. Škiudas) is quite high, so College should make efforts to involve younger teachers and teachers with PhD degree directly related to the field of electric power engineering (i.e. subjects related to electrical networks). Active participation of teachers from industry is also very welcome.

Problem based learning is applied but only in shorter tasks. Microprocessor relays were mentioned as an example of applied research for all students. Although evaluators asked to see this example before and during the visit to laboratories, no demonstration was shown.

The College provides a good administrated system of teachers' professional development. Academic exchange of teachers takes place constantly. Teachers take part in internships, pedagogical and practical qualification, seminars and exchange programmes. Mobility should grow from the present level however the limited practice in English language may limit the attraction for such activity and incoming foreigners.

As a whole the qualification of the teaching staff meets the existing regulative documents and is sufficient to implement the aims of the study programme and to achieve the intended learning outcomes. There are some good examples that teachers participate in applied research that is directly related to the study programme. They also publish scientific papers presented at national and international conferences and archived journals. Here important role in stimulating scientific research play teachers from Vilnius Gediminas Technical University and Kaunas University of Technology. These activities are not somehow proportional to the size of the Utena College and certainly can be straighten for the benefits of the study programme.

The applied scientific activity could be encouraged by the administration of the college. As a recommendation, more activities for the staff could be suggested – to be more involved in international co-operation, exchanges with other academic and professional institutions, as well as with the industry. The English language skills of programme's teachers (as the recommendation from previous evaluation) should be further improved.

2.4. Facilities and learning resources

During the on-site visit, the international panel had an opportunity to visit the premises of Utena College that are related to the study programme under evaluation. Teaching in classrooms, practical activities, and laboratory works take place in different buildings around Utena town, which causes extra travel and inconveniences for students and staff. Thus the infrastructure is considered not so convenient. Facilities for distance studies and online consultations are proper, the Moodle system is functioning as well. During the on-visit, good examples of teaching materials placed in the system were demonstrated.

The experts outline that some laboratories have to manage with outdated equipment. There is unfortunately a considerable lack of modern devices related to electric networks (measurement, analysis, control and protection). In teaching laboratories for power engineering various types of electric machines were available for learning by measurements. Also e.g. mechanical relays and Autocad software were shown and some single kits used in demonstrations. In comparison, for automation engineering studies conditions seemed somewhat better and hopefully students studying power engineering can also enjoy those conditions in some means. In addition, students have a chance to visit advanced university laboratories in Kaunas.

Students use quite modern computer hardware with necessary software provided. All the computers are linked into a network and have the Internet access. Students can also bring their own devices and they have a possibility to connect to the wireless Internet hotspots.

The College library has installed a system that allowed computerizing the book borrowing procedure. Teaching materials (textbooks, books, periodical publications, databases) are adequate and accessible. The Library of the College has subscriptions to VGTU and KTU e-book collections suitable for the studies of Electrical Energetics. Nevertheless, there could be more modern and up to date books within the library itself. Currently the library is also located further away from the main campus. The necessary study material is available but there is a severe lack of new textbooks, especially those written in English.

There were 57 cooperation agreements signed with industrial enterprises by the University for students' practice placement that is good. Graduates said that students get in contact with modern equipment only during their practice in industry.

Although the panel of experts is aware that the learning facilities of Utena College will be upgraded in the future (funded by the Ministry and other external sources), this evaluation is based on the present state. Thus once again it should be noted that some laboratories use outdated equipment. There is considerable lack of modern equipment related to electric networks (measurement, analysis, control and protection). This equipment must be modernised using internal financing mechanisms, external funding or support from industry. During the same week, the evaluation team had an opportunity to evaluate several College level programmes in Electrical Energetics and it can make an obvious comparison in terms of quality, variety and quantity of the learning resources, facilities and equipment. Thus in conclusion it could be stated that the material resources and facilities are more or less adequate, but presently they can only be evaluated as of a satisfactory level. This area requires quite a number of improvements to be made in the future.

2.5. Study process and students' performance assessment

The admission requirements are well founded. The admission requirements to state-funded and state non-funded places are made in accordance with legal acts of Lithuania. A suitable number of student places have been available for this study programme but in many cases unfortunately students enter with relatively low grades.

In the very beginning students have a 10-hours introductory course to the studies. The organisation of the study process ensures an adequate provision of the programme and the achievement of the learning outcomes.

Students are allowed to switch between part-time and full-time studies when there is a need. Students can get with little difficulties an individual study plan if necessary. Especially part time students have on-site studies on Saturdays while on Mondays no lectures are given even to full-time students, this arrangement allowing two days off in sequence period. The virtual learning environment Moodle is well utilised in the study process.

The students do not need to buy any books. The few required books could be found in the library and nearly all study material is provided by teachers. It could be noted that currently there are no female students studying in the programme.

Even though this programme is a professional bachelor, students should be encouraged to participate in applied research activities, currently they are not active in this field. In terms of international mobility, students have opportunities to join mobility programs. Also in Rezekne

Augstskola (Latvia) students can have their professional practice. During the on-site visit the team learned that activities concerning Erasmus exchange programme were started very recently. However, the team learned that the students have little interest in mobility programs due to various reasons (jobs, personal reasons, etc.). The student mobility rate should be increased in the future.

The College ensures an adequate level of academic and social support. The students told that their maximum scholarship from government has been typically about 50 € per month which seems very low in terms of European standards.

The assessment system of students' performance is clear, adequate and publicly available. Assessment system of a particular subject is very clearly expressed in the descriptions of the study subject. Most commonly subjects in Utena are assessed using accumulative score. Part of the final mark is typically received during study semesters by doing various tests, doing seminars and completing practical assignments. The rest of the mark is received during the exam on the examination session. This lets students distribute the workload of subject through entire semester. Also it should be noted that students could have regular consultations with their teachers.

Some municipalities in the area have a considerable Russian speaking population that has been well considered in teaching communication. In general, the knowledge in English seemed unfortunately quite poor among all groups interviewed during the visit. This should be one of the important things that should be improved in the future, as English is the common international language.

The College connections to secondary schools are here considered essential for encouraging qualified secondary school students to apply. Nearly all students come from Utena region and also stay there after graduation.

Professional activities of the majority of graduates meet the programme providers' expectations. The practice organization is well coordinated. Students can choose a place of practice by their own initiative. Utena College may also arrange a place for practice if needed, although the students have to possibility to find their practice places on their own. Another point worth mentioning – many students of the programme are already working during their studies in the electrical engineering field. Following the SER as well as conversations during on-site visit, a conclusion can be made that the supervision of students on practice (recommendation from previous evaluation) was improved.

A new student member was recently (this year) elected to the Study Programme Committee by the department managers, so it was not possible to clarify his involvement in the implementation of this programme or that he also gathers feedback from the majority of the

students. Nevertheless, the students seemed very satisfied with the programme. They did not, however, show any innovative proposals for its development during the site visit. Formally, the alumni and social partners participate in the active work of the study programme committee. During the meeting with stakeholders, it was once more verified that there is a continuous need of young specialists of electrical engineering.

Based on the current numbers, there is severe lack of students admitted in 2015 to this study programme (verified during the site visit). It seems to be a new national problem, not only for Utena College or this specific programme.

Some of the previous evaluation's recommendations (increase the number of programme entrants and Erasmus students) were not fully implemented due to more or less the same reasons – low number of students and that the majority of them are already working during their studies and this is a huge obstacle for international exchange.

It was explained to the evaluation team that the electrical energetics study programmes are not quite popular in the whole country, despite the high demand of graduates from industry.

It must be noted that more attention should be paid to the attraction of more students to the programme. The presently small number of students is not quite sufficient for a successful programme.

2.6. Programme management

Decision making regarding the implementation of the study programme, quality assurance and improvement or other important issues is performed in a collegial manner – by the department, Dean's Office, Rector's Office, the Faculty Board, the Academic Board, Study Programme Committee, the Board for Quality in their respective meetings. In order to evaluate the rationality of the distribution of responsibility for the management of the study programme and to answer other important questions on management, assessments of the possibilities and results of Utena UAS an EFQM questionnaire were carried out in 2012, 2013, and 2014. Here the administration and teachers in this study programme were requested for their opinion regarding the responsibility distribution.

The responsibility for the realization of the aims and learning outcomes as well as constant monitoring of the quality of the study programme rests with the Study Programme Committee – an organizational structural unit of the College department. This Committee is indeed formally working; however the panel did not manage to clarify the reality work of this Committee.

Teachers themselves also meet at least once a month to discuss and even approve certain tasks of exams. Students have to possibility to evaluate their teachers and the courses on a regular basis.

The recommendations of the previous evaluation group (in 2012) regarding the improvement of this programme have been considered in feasible amount. A document explaining how the recommendations were implemented was given to evaluators during the on-site visit. However, it nearly completely refers to texts already included in the SER, thus the evaluation team did not learn many new things from this document.

Utena College has close relations with industry and via these relations it also improves the Electrical Energetics programme according to the needs of industry and the market. Utena College should, however, use these relations to cooperate with industry more efficiently for curriculum updating and for getting more and most importantly new equipment for studies. The social partners could invest/donate equipment for the College in order to guarantee well prepared graduates who had the opportunity to work with modern laboratories/equipment. During the site visit some social partners emphasised that they need graduates with more general education, thus this may question the requirement of two specializations. Entering a particular company, the graduates can be trained to do more specialised tasks related to their present work.

For developing the internal quality assurance, the Study Quality Management System was implemented in February 2013. The System is based on ISO 9001 Quality Management Standard, EFQM Model of Excellence as well as the Standards and guidelines for the Quality Assurance in the European Higher Education area. It covers the main processes of the college and teachers demonstrated its usefulness during the site visit.

As the experts observed, the specialization “Enterprise Electric Economy” during the last period had no students, so it is recommended to discuss this situation with stakeholders to take actions to change the situation (merge specializations, new marketing strategies, etc).

It should be noted that during the on-site meeting some of the programme’s stakeholders indicated the intention to be involved in the decision-making process in a more active way. So it is highly desirable that these intentions will be realized by administration.

III. RECOMMENDATIONS

1. More attention should be paid to the attraction of more students to the programme e.g. by active promotion in secondary schools. The recently decreased number of students is not quite a sufficient basis for a successful programme.
2. The programme aim should be formulated in more coherent way to be easier understood and accepted by stakeholders, especially secondary school graduates.
3. The intended learning outcomes of the study programme could be formulated using EUR-ACE methodology for the engineering study programmes.

4. Some study subjects could include more ICT (Information and Communication Technologies) and electronics linked topics (e.g. Automation of Electric Distribution Networks, Electrical Measurements, Electrical Drives and their Control). Some part of topics (as well as training equipment) is quite outdated and is not relevant nowadays, so there is a rather big room for changes and improvement.
5. The applied scientific activity could be encouraged by the administration of the college.
6. In order to concentrate human and material resources – a discussion with stakeholders should be considered regarding the possibility to implement the study programme without any specializations.
7. The literature that is used for the curriculum of this programme should be updated.
8. The strategy for systematic renewal of teaching personnel should be developed. Active participation of teachers from industry is also very welcome.
9. The equipment directly related to electrical power engineering should be modernised either by using internal financing mechanisms, external funding or support from industry.
10. Motivational tools for students to participate applied research activities should be created.
11. The English language skills of programme's teachers (as the recommendation from previous evaluation) should be further improved.
12. Mobility of staff and students especially to abroad should be increased. The college should put more effort in establishing more international relations with foreign HEI's.

IV. SUMMARY

The Faculty of business and technologies at Utena College offers twelve study programmes. The Electrical Energetics study programme is one of them, it started in 2010 and received its first international evaluation in 2012. Recommendations of that evaluation have been considered quite well and the study programme has considerably developed since that.

It should be noted that Utena region has lots of important industry. The programme is much based on its demands. Learning outcomes are assessed by teaching staff and social partners and in addition some employees have informal contacts with teaching personnel.

The content of the courses, in general, is consistent with the type and level of college studies. The self-evaluation report was very long and not so clear in some parts. The aim of the study programme was not explicitly defined. The programme has two specializations, one of them – “Enterprise electric economy” is not functioning in practice due to lack of students. The evaluation team suggests that this programme would not be split to specialisations any more in the future, due to a decreasing number of students. This way the College would be able to centralize human and financial resources.

The students expressed some concerns regarding study subjects in social sciences, especially in case of philosophy. As part of the higher education, the general courses that support the possibility to understand the world more widely are for sure important in principle. Nevertheless, perhaps this topic could be discussed with students in suitable occasions.

The teaching staff meets legal requirements, however quite many teachers are rather old. The College provides a good administrated system of teachers' professional development. There are also teachers from Universities who teach in Utena College. The mobility of teachers is considered rather low and could be improved. Another point which is important (and was not fully implemented since last accreditation) is to further increase the proficiency of English language and integrate it more within the curriculum. As a result, the limited practice in English language limits the attraction for incoming foreigners (teachers, students, social partners).

The premises are spread to several locations and it results in some inconveniences regarding the infrastructure. There is a clear lack of modern laboratory equipment that is related to this field and specifically to this programme. Because of this point, the evaluation group, unfortunately, considers the material resources only on a satisfactory level. Thus if possible, a new building with modern laboratories would be highly desirable to improve the overall impression of the HEI. Having in mind the difficulties regarding financing, it might be hard to organize a new infrastructure for the College, however the team believes that at least improving the state of laboratories and equipment is surely possible. On the positive side, the facilities for distant studies are well developed and efficiently used.

The college has a quality management system that covers the main processes of the college which has been awarded by ISO 9001:2008. Its usefulness was explained by the teachers during the meeting.

It should be noted that during the on-site meeting some of the programme's stakeholders indicated the intention to be involved in the decision-making process in a more active way. So it is highly desirable that these intentions will be realized by the College administration.

The admitted students have in many cases low grades and this situation requires solutions to be dealt with or it may weaken the programme and the achievability of learning outcomes in the future. This autumn (2015) the numbers showed that there is also a lack of applicants for this programme. There is severe lack of students admitted in 2015 to the College, also specifically to this study programme. Now there could be some marketing solutions implemented, still the solution to this problem is most likely beyond the possibilities of Utena College and it should be considered on a national level. Nevertheless, during the meeting with

stakeholders it was learned that there is a continuous need of young specialists of electrical engineering.

As a summary the future of the study programme is quite good and it is worth continuation and strengthening, especially due to its very high positive local impact. The industry really needs it. Nevertheless, the essential part of material resources (equipment and laboratories) should be improved in the near future. The industry could invest in terms of new equipment for this programme in order to guarantee a proper material base for future graduates.

V. GENERAL ASSESSMENT

The study programme Electrical Energetics (state code – 653H63002) at Utena 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	3
4.	Facilities and learning resources	2
5.	Study process and students' performance assessment	3
6.	Programme management	3
	Total:	17

*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:	Prof. dr. Krzysztof Kozłowski
Grupės nariai: Team members:	Doc. dr. Sergey Shaposhnikov
	Emeritus prof. dr. Erkki Lakervi
	Doc. dr. Gediminas Valiulis
	Mr Ignas Gaižiūnas

UTENOS KOLEGIJOS PIRMOSIOS PAKOPOS STUDIJŲ PROGRAMOS *ELEKTROS ENERGETIKOS* (VALSTYBINIS KODAS – 653H63002) 2015-12-02 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-318 IŠRAŠAS

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V. APIBENDRINAMASIS ĮVERTINIMAS

Utenos kolegijos studijų programa Elektros energetika (valstybinis kodas – 653H63002) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	3
3.	Personalas	3
4.	Materialieji ištekliai	2
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	17

* 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

Utenos kolegijos verslo ir technologijų fakultetas siūlo dvylika studijų programų. Viena iš jų yra *Elektros energetikos* studijų programa; ji pradėta vykdyti 2010 m., o 2012 m. atliktas jos pirmasis tarptautinis įvertinimas. Į to vertinimo rekomendacijas gana neblogai atsižvelgta, ir ši studijų programa nuo to laiko nemažai patobulinta.

Reikėtų pažymėti, kad Utenos regione yra daug svarbių pramonės įmonių. Ši programa labai pagrįsta jų poreikiais. Dėstytojai ir socialiniai partneriai vertina numatomus studijų rezultatus, be to, kai kurie darbdaviai palaiko neformalius ryšius su dėstytojais.

Dalykų turinys iš esmės atitinka koleginių studijų rūšį ir pakopą. Savianalizės suvestinė labai ilga, o kai kurios jos dalys nelabai aiškios. Studijų programos tikslas nebuvo aiškiai apibrėžtas. Yra dvi šios programos specializacijos, viena iš jų – „įmonės elektros ūkio“

specializacija – praktiškai neįgyvendinama, nes trūksta studentų. Vertinimo grupė siūlo ateityje nebeskaidyti šios programos į specializacijas dėl studentų skaičiaus mažėjimo. Taip Kolegija galėtų centralizuoti žmogiškuosius ir finansinius išteklius.

Studentai išreiškė susirūpinimą dėl socialinių mokslų studijų dalykų, ypač filosofijos. Siekiant aukštojo mokslo, bendrieji dalykai, žinoma, yra svarbu norint plačiau suvokti pasaulį. Tačiau ši tema galbūt galėtų būti aptariama su studentais atitinkamais atvejais.

Dėstytojai atitinka teisės aktų reikalavimus, tačiau daugelis dėstytojų yra gana senyvo amžiaus. Kolegija yra sukūrusi gerai valdomą dėstytojų profesinio tobulinimo sistemą. Utenos kolegijoje dėsto universitetų dėstytojai. Dėstytojų judumo lygis laikomas gana žemu ir galėtų būtų didinamas. Dar vienas svarbus klausimas (neišspręstas nuo paskutinės akreditacijos) yra tolesnis anglų kalbos įgūdžių tobulinimas ir didesnis anglų kalbos integravimas į studijų turinį. Ribotos praktinės anglų kalbos žinios trukdo pritraukti užsieniečius (dėstytojus, studentus, socialinius partnerius).

Patalpos išsidėsčiusios keliose vietose, dėl to yra kai kurių su infrastruktūra susijusių nepatogumų. Akivaizdžiai trūksta šiuolaikiškos įrangos, reikalingos šiai studijų kryptčiai ir būtent šiai programai. Dėl šios priežasties vertinimo grupė mano, kad materialųjų išteklių lygis, deja, yra tik patenkinamas. Todėl labai pageidautina, kad bendram įspūdžiui apie šią aukštąją mokyklą pagerinti būtų pastatytas (jei įmanoma) naujas pastatas su moderniomis laboratorijomis. Turint omenyje finansavimo sunkumus, gali būti sunku sukurti Kolegijai naują infrastruktūrą, tačiau grupė tiki, kad bent jau pagerinti laboratorijų ir įrangos būklę tikrai įmanoma. Kalbant apie teigiamus aspektus, reikia pasakyti, kad nuotolinėms studijoms skirtos priemonės yra geros ir veiksmingai naudojamos.

Kolegija yra įdiegusi kokybės vadybos sistemą, apimančią pagrindinius Kolegijos procesus ir patvirtintą pagal ISO 9001:2008 standartą. Apie jos naudingumą dėstytojai aiškino per susitikimą.

Reikėtų pažymėti, kad per susitikimą vietoje kai kurie programos socialiniai dalininkai pareiškė norą aktyviau dalyvauti sprendimų priėmimo procese. Todėl labai pageidautina, kad Kolegijos administracija įvykdytų šį norą.

Daugelio priimtų studentai pažymiai žemi, tad reikalingi sprendimai šiai padėčiai pakeisti, nes dėl jos gali susilpnėti programa arba ateityje bus sunkiau pasiekti numatomus studijų rezultatus. Šį rudenį (2015 m.) skaičiai parodė, kad vėl mažai stojančiųjų į šią programą. 2015 m. į Kolegiją priimta ypač mažai studentų, į šią programą taip pat. Reikėtų tuoj pat įgyvendinti tam tikrus rinkodaros sprendimus; atrodo, kad minėtos problemos sprendimas viršija Utenos kolegijos galimybes, taigi jis turėtų būti svarstomas nacionalinių lygmeniu. Susitikus su socialiniais dalininkais paaiškėjo, kad nuolat trūksta jaunų elektros inžinerijos specialistų.

Baigiant reikia pasakyti, kad šios studijų programos ateitis perspektyvi, programą verta tęsti ir stiprinti, ypač dėl jos labai didelio teigiamo vietinio poveikio. Pramonei jos tikrai reikia. Tačiau svarbiausią – materialųjų išteklių (įranga ir laboratorijos) – dalį reikėtų patobulinti netolimiausioje ateityje. Pramonės įmonės galėtų investuoti į šiai programai reikalingą naują įrangą, kad būsimiems absolventams būtų užtikrinta tinkama materialinė bazė.

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III. REKOMENDACIJOS

1. Į *Elektros energetikos* studijų programą reikėtų stengtis pritraukti daugiau studentų, pvz., aktyviai ją reklamuojant vidurinėms mokykloms. Pastaruoju metu sumažėjęs studentų skaičius nėra programos sėkmės pagrindas.
2. Reikėtų aiškiau suformuluoti programos tikslą, kad jį lengviau suprastų ir priimtų socialiniai dalininkai, o ypač vidurinių mokyklų absolventai.
3. Numatomi šios studijų programos rezultatai galėtų būti formuluojami taikant EUR-ACE metodiką, skirtą inžinerijos studijų programoms.
4. Į kai kuriuos studijų dalykus reikėtų įtraukti daugiau su informacinėmis ir komunikacinėmis technologijomis ir su elektronika susijusių temų (pvz., elektros skirstomųjų tinklų automatizavimas, elektriniai matavimai, elektros pavaros ir jų valdymas). Kai kurios temos (kaip ir mokymo įranga) yra gana pasenusios ir šiandien nebetinka, taigi yra ką keisti ir tobulinti.
5. Kolegijos administracija galėtų paskatinti mokslo taikomąją veiklą.
6. Siekiant sutelkti žmogiškuosius ir materialiuosius išteklius, reikėtų kartu su socialiniais dalininkais aptarti galimybę šią studijų programą įgyvendinti be specializacijų.
7. Reikėtų atnaujinti literatūrą, naudojamą šios programos turiniui parengti.
8. Reikėtų parengti nuolatinio dėstytojų atnaujinimo strategiją. Taip pat sveikintinas būtų aktyvus dėstytojų ir pramonės sektoriaus dalyvavimas.
9. Įrangą, tiesiogiai susijusią su elektros energijos inžinerija, reikėtų modernizuoti taikant vidinius finansavimo mechanizmus, išorinį finansavimą ar pramonės sektoriaus paramą.
10. Reikėtų sukurti studentų motyvavimo dalyvauti mokslo taikomojoje veikloje priemones.
11. Reikėtų toliau gerinti programos dėstytojų anglų kalbos įgūdžius (ankstesnio vertinimo rekomendacija).

12. Reikėtų didinti dėstytojų ir studentų judumą, ypač jų kelionių į užsienį skaičių. Kolegija turėtų stengtis užmegzti daugiau tarptautinių ryšių su užsienio aukštosiomis mokyklomis.

Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

Vertėjos rekvizitai (vardas, pavardė