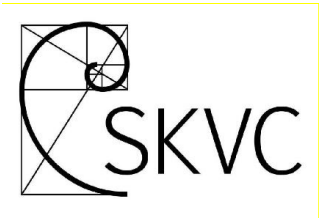

STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

KLAIPĖDOS UNIVERSITETO

STUDIJŲ PROGRAMOS

Elektros inžinerija (612H62003)

VERTINIMO IŠVADOS

EVALUATION REPORT OF

Electrical engineering (612H62003)

STUDY PROGRAMME

at ***Klaipėda University***

Grupės vadovas: Team leader:	Prof. dr. Edmund Handschin
Grupės nariai: Team members:	Prof. dr. Tilmann Krueger
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Išvados parengtos anglų kalba
Report language - English

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	**Elektros inžinerija**
Valstybinis kodas	612H62003
Studijų sritis	Technologijos mokslų studijų sritis
Studijų kryptis	Elektronikos ir elektros inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (4 metai)
Studijų programos apimtis kreditais	240 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Elektros inžinerijos bakalauras
Studijų programos įregistravimo data	1997-05-19 Nr. 565

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	**Electrical engineering**
State code	612H62003
Study area	Technological sciences
Study field	Electronics and electrical engineering
Kind of the study programme	University Studies
Study cycle	Second
Study mode (length in years)	Full-time (4 years)
Volume of the study programme in credits	240 ECTS
Degree and (or) professional qualifications awarded	Bachelor of Electrical Engineering
Date of registration of the study programme	1997-05-19 Nr. 565

CONTENTS

I. INTRODUCTION

This evaluation and accreditation report is based on the self-evaluation report (SER) for the BA study programme "Electrical engineering" provided by Klaipeda University (KU), Faculty of Marine Engineering, Department of Electrical Engineering and the information gathered during the on-site visit to KU. The study programme is carried out by the Department of Electrical Engineering. This BA study programme has been previously evaluated by an international team in 2010. The major recommendations and the reactions of the department have been listed in the actual SER and verified during the on-site visit. The self-assessment report of Klaipeda University has been prepared in 2012/13 and submitted in 2013. Major changes since the last evaluation concern the modernisation of the equipment in the laboratories, improved lectures, more international contacts, a well designed programme management procedure, staff training and social support. Details will be given in section II. According to the presentation of the faculty administration staff the two faculties "Science" and "Marine Engineering" will be merged in the near future in order to build up a joint Marine Valley Building. The time horizon for this merge is 2020 and the corresponding budget amounts to 100 Mio. Litas. The administrative staff of the University indicated that a substantial number of Indian students will soon start their studies in Klaipėda. It will be interesting to see how many students will choose the electrical engineering study programme.

The remote evaluation was performed in April 2014. The on-site evaluation was carried out by the entire evaluation team on April 30, 2014 on the premises of Klaipeda University.

All decisions concerning the final evaluation and accreditation report have been taken unanimously by the entire team.

Abbreviations:

KU	Klaipeda university
SER	Self evaluation report
BA	Bachelor
EE	Electrical engineering
SPC	Study programme committee

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The main aim of the BA study programme in electrical engineering is to prepare higher qualification electrical engineering specialists trained for using the most up-to-date technology. The study programme also intends to combine the skills of basics in business and management, with knowledge of humanitarian and social sciences. It provides a good basis and motivation to continue the studies towards the MA qualification. These aims and the expected learning outcomes are well defined, clearly and publicly accessible. The learning outcomes are achievable through the BA study programme; however the soft engineering skills in business and management need further attention in the corresponding lectures "Management", "Information searching", and "Law" because important topics such as project management, work flow management, budget planning, quality assurance etc. are not yet adequately addressed in the lectures mentioned before. This deficiency has been strongly confirmed by the employers. Great emphasize is put on stimulating team work amongst the students by working in groups both for laboratory experiments and lecturing activities.

Electrical Engineers are in great demand both on a national level as well as in regional state institutions and industrial companies. From a regional point of view engineering and scientific staff is required for shipbuilding and ship repair enterprises, specialized laboratories, scientific research divisions, design and construction centres, ship classification companies and for work at higher educational institutions. The programme aims are consistent with the academic and professional requirements in the labour market for electrical engineering. There are three aims in the BA study programme:

1. to meet at least one of the following main requirements
   - provide all degree holders with a core set of knowledge in electrical engineering
   - ensure that all degree holders have enough abilities, skills and motivation for life long learning
   - reflect current and future labour market demands
   - support traditional and emerging career opportunities
   - allow international student mobility
2. include a compulsory course "Practise" in the study programme
3. familiarize the students with the vision 2013 – 2018 of the electrical engineering department.

Taking the above remarks with respect to soft engineering skills into consideration, the aims and learning outcomes are based on the academic and professional requirements as well as the needs of the labour market. Since the last evaluation of the BA study programme in 2010 major changes have been successfully implemented with respect to the recommendations presented in the review report 2011. They concern the modernisation of the equipment in the laboratories, improved lecture contents, better programme management, improved staff training and social support. Due to the short time between the two reviews (3 years) there still remain a number of mandatory changes with respect to the BA study programme in electrical engineering. They will in detail be described in the following sections. The discussions with the faculty administrative staff, the students, the graduates and the employers lead to the confirmation that they all are satisfied both with the quality of the study programme as well as the actual quantity of the graduates. The employers see a growing number for qualified EE graduates in the near future. The programme aims and learning outcomes are consistent with the type and level of studies and the level of qualification offered. The graduates confirm that the BA study programme develops a sense of independence and confidence to sustain a successful career after graduation,

The content of the BA study programme is satisfactory in order to achieve the intended competences by the students. The name of the programme, its learning outcomes, content, and the qualifications offered are compatible with each other. The study programme emphasizes team work in a number of subjects thus reflecting today's requirements encountered in the professional life. Communication abilities are well supported in the module called "Professional Speech and Expression". The interaction between the vision of studies of electrical engineering and the actual study programme is week; strong and focused efforts have to be undertaken in order to close this gap between reality and vision within the next few years.

2. Curriculum design

For the full-time study form there are 2602 contact hours. The required minimum is 2600. The study volume is evenly distributed over the 8 semesters with 30 credits each. Depending on the semester the weekly students´ workload ranges from 21 to 27 contact hours with an average of 24,5 contact hours, except the 8th semester where most of credits (27 cr.) are dedicated to the Practice (15 cr.) and the preparation of Final Bachelor's Work (Final Bachelor's Work, 12 cr.). The number of study subjects per semester does not exceed 7 subjects. The last semester has only 3 subjects. The total volume of course works as a separate subject is 5 credits.

For the part-time evening study form (120 credits, the other 120 credits are confirmed from the college studies to obtain the required 240 credits), which is established for the students graduated at a college, there are 1110 contact hours. The required minimum is 850 for 120 credits. The studies are held after 5 p.m. each workday. The study volume is evenly distributed over the 4 semesters with 30 credits each. Depending on the 14 semesters the weekly students' workload ranges from 10 to 22 contact hours with an average of 19 contact hours, except the 4th semester where 21 credits are dedicated to the preparation of final Bachelor's work. The number of study subjects per semester does not exceed 7 subjects. The total volume of course work depends upon the elective subjects and the projects are included in the subjects (min – 3, max – 4). More special subjects are presented in the part-time study form due to the already accomplished college studies.

Thus the curriculum design both for the full-time and the part-time studies meets all relevant legal requirements. It is in line with all the institutional and state directives. International directives are increasingly observed because international contacts of the department of electrical engineering are well developing.

Compared with the curriculum content evaluated in 2010 a substantial improvement can be assessed concerning the actual programme. The actual study subjects and modules are spread evenly, their themes are not repetitive. In general, the content of the subjects and modules is consistent with the type and level of the studies. However, the content of the study programme does not entirely reflect the latest achievements in electrical engineering science. The vision of the EE department in the field of smart systems may serve as an excellent basis for future improvement of the following lectures:

1. Mechanic of materials: Strength of materials is to provide knowledge about the engineering of materials used and the properties of structural elements in the calculation of assessing the material properties and deformation mode. These topics rather belong to mechanical engineering than electrical engineering.

2. Automated Electrical Drives Control Systems and their modelling: The content of this lecture lacks a clear focus to the departmental vision. Important topics such as energy savings and efficiency etc. are missing. This lecture urgently needs an update. Better coordination with the course on "Electrical Drives of Typical Mechanisms and Course Project" is necessary. Overlapping issues should be eliminated to create space for innovative topics.

3. Electrical energetic: This lecture urgently needs improvement with a clear focus on power system engineering. Some of the additional recommended literature is completely

outdated. No CV information concerning the responsible lecturer Danielius Adomaitis is available in the SER.

4. Automation of Typical Technological Processes: This lecture needs to be replaced because its content does not fit neither into the BA study programme nor the departmental vision. This lecture should be replaced by a new lecture dealing with power system operation and control taking smart technologies into consideration.

5. Electrical Safety and Electro technical Materials: This lecture should be better and closer coordinated with the lecture „Human Safety“. The resulting free space should be reserved for topics in the field of high voltage engineering.

6. Enterprise energy: This lecture needs to be adapted to the present state of the art including liberalisation of the energy market, unbundling, regulators etc. The lecture should be conforming to the EU legislation with respect to electric power companies. No CV information concerning the responsible lecturer Mindaugas Juška is available in the SER.

7. Electromagnetic Field Theory: This lecture is fundamental in BA electrical engineering and should therefore be mandatory for all Bachelor students. The focus should be on theoretical electrical engineering based on the Maxwell equations. The lecture should be a consistent continuation of the mathematical lectures.

Furthermore the soft engineering skills in business and management need further improvement in the corresponding lectures “Management”, “Information searching”, and “Law” because important topics such as project management, work flow management, budget planning, quality assurance etc. could be more adequately addressed in these lectures.

Once these subjects have been updated and adapted to the present state of knowledge in electrical engineering described in the departmental vision, the scope of the reviewed study programme will be sufficient to ensure the envisaged learning outcomes. Its content and methods will be appropriate for the achievement of the intended learning outcomes and will be consistent with the present state of knowledge in electrical engineering. The changes and improvements done since the last review in 2010 indicate that the above recommendations are in line with the previous evaluations results; it is acknowledged that the required changes need some time to be implemented but the evaluation team is confident that they can and will be implemented in the near future.

In 2010-2012, the EE Department signed more than 25 agreements with regional companies allowing an efficient information exchange with respect to the EE study programme and

the successful implementation of the 10 weeks “Practice” providing suitable practical placement for students. This industrial internship (15 cr.) is well accepted by students and industry. Industrial tutors and the teaching staff adequately support the students during their industrial internships. All students find an industrial placement for the “Practice”.

The students, the graduates and the employers confirm the commensurability of the curriculum design with their needs and interests.

3. Staff

Based on the submitted but incomplete CV it can be assessed that the legal requirements with respect to the staff providing the BA study programme are met. The qualifications of the teaching staff are adequate to ensure the learning outcomes. However, from the available CV it is noted that the majority of the staff teaching the core subjects in EE are specialized in neighbouring areas of EE and hence several core subjects only have limited relevance to EE. Important examples are: “Theoretical mechanics”, “Materials engineering”, “General Chemistry”, “Management”. Since staff rotation is presently an urgent problem it is recommended to consider this aspect when allocating core courses in the future. The work load of the present staff is well distributed. But it is of concern that the EE department presently has only two PhD students; thus the human resources are quite limited and it might be a problem to have a sufficient number of lecturers in view of the large number of electives in the future. Klaipėda University creates good conditions for the professional development of the teaching staff by organising appropriate intern didactical seminars and other forms of advanced vocational training. Through a regular staff evaluation programme and a certification procedure of all lecturers every 5 years the qualification level is kept consistently high. No underperformance of any staff member has been reported during the on-site visit. The students appreciate the strong efforts undertaken by the staff with respect to individual tuition.

From the presented CV it is noted that the majority of the teaching personnel has good teaching experience; the qualifications and actual number of teaching staff are adequate to ensure the intended learning outcomes. Several staff members have strong links to local engineering companies and hence they well know the demands of today’s dynamic world where the professional requirements are continuously changing. The educational load in the electrical engineering programme does not exceed 400 hours on the average, thus leaving enough time for research work. The rotation of lecturers is positively noted because this principle may have an advantageous effect on the quality of the study programme. A few teachers participate in international exchange programmes for qualification improvement. However, the number of teachers partici-

pating in such exchange programmes is currently too small: in 2011 and in 2012 only 4 teachers visited a higher institute abroad. International academic networking is increasing: in 2013 7 teachers from abroad visited Klaipėda University. But it must be pointed out that the visiting teachers are geographically not well balanced because out of 22 visitors 50% are from Turkey.

The teaching staff of the study programme is not sufficiently involved in multi-year international research activities in the field of EE. This may be a consequence of the limited mobility of teachers because a strong international academic network is an absolute mandatory prerequisite for the successful acquisition of international research projects. Also it must be noted that no EU sponsored research project is carried out in the EE department. As a consequence the number of international publications by the academic staff is too small and hence the international visibility of the EE department of Klaipėda University is still rather low.

4. Facilities and learning resources

The premises and facilities comply both in size and quality with the requirements and needs for the study process. The edificial state of the building (in particular the stair case) is low but is has been indicated that a new building will be erected after the merger of the two faculties mentioned in the introduction. The auditoriums are functional, in a well maintained status, and technically well equipped. Significant and successful investments in laboratory equipment and laboratory modernisation since the last review in 2010 support the programme aims and learning outcomes. It is very important that this modernisation process is consistently pursued in the coming years. Cooperation with industry should focus on possible industrial donations in the field of new equipment and software. In the study process a number of laboratories are used. During the onsite visit the evaluation team visited the following laboratories: Electronics laboratory (modern), Electro technical laboratory (further improvement necessary), mechatronic laboratory (modern), automation laboratory (modern), smart control system laboratory (modern), physics laboratory (adequate), young scientists room (adequate), mechanical laboratory (conventional), chemistry laboratory (conventional), Information technology laboratory (modern). In conclusion, the teaching and learning equipment (laboratory and computer equipment, consumables) are adequate both in size and quality to ensure the aims of the learning outcomes.

There is a modern university library with extensive capability for studying. It has an adequate budget for the purchase of new books. Good access to international databases such as ACS, EBSCO, Ebrary etc. is noted. The library provides the necessary information for the students by means of lecture notes, text books and journals. Teaching materials (textbooks, books,

periodical publications, databases) are adequate and easily available for students either in printed form or in the internet.

The actual BA study programme includes a compulsory course "Practise" based on a ten week industrial internship. There is a formal agreement between the University and several industrial partners; hence KU has adequate arrangements for students' practice. The students´ tuition during the industrial internship is ensured by the hosting industry. Some industrial representatives are still reluctant to offer positions for this internship programme because they "are afraid" to prepare specialists for competitors.

In collaboration with the department for informatics the EE department presently develops new concepts in the field of modern e-learning methods in order to establish a distant learning course in EE. These activities are still in a preliminary stage and hence not yet to be assessed.

Although the department has the ability to offer some lectures in English no regular lecture is offered in English. Since the number of incoming Erasmus students is very small individual lectures are offered to them in English.

5. Study process and student assessment

The student admission is according to the Lithuanian legislation; the admission requirements are well-founded and publically accessible. The university makes considerable efforts to increase the number of incoming students and to motivate them for a successful study. Nevertheless, the number of students decreased in the first semester from over 30 to about 20. The University, Faculty and Department must increase their efforts to attract at least 30 to 40 capable students each semester for the BA study programme. The existing Klaipėda club of robotics may play an important role in these efforts. A possible competition for the potential students by the neighbouring technical college in Klaipėda has been discussed.

Timetables are scheduled rationally according to the Study Programme design, KU Academic Regulations and wishes of both lecturers and students. The organisation of the study process ensures an adequate provision of the study programme and the achievement of the learning outcomes. KU ensures an adequate level of academic and social support. Students are provided with all the needed information concerning the university study programme as well as social and academic support; some of them get social scholarships. The University also provides financial support for student academic activities (they finance robotics club travels to other countries). Because of the small student number students they have a good cooperation with teachers when asking for academic support. Some students are actively participating in the research ac-

tivities of the teaching staff. The degree of commitment depends very much on the individual teacher and his specific research activities.

The dropout rate of full-time students is not high and reaches an average of about 9%. Improved consultations between students and teachers may improve this rate even further. Concerning the international student exchange little activities are reported in the SER and during the on-site visit with respect to incoming and outgoing mobility. The administrative staff of the university emphasizes that all the necessary information concerning mobility activities are well spread and known to all students and teachers.

The assessment system of students' performance is well described and follows the legal requirements. It is clearly documented, adequate and publicly available. The list and marks of the final bachelor thesis indicates that the large majority of the BA theses are highly market; the average mark for the BA theses in 2013 was 9,5. A stricter application of the full mark range from 5 to 10 for the evaluations is strongly recommended because the allowed range of evaluation marks for the final thesis is not evenly and adequately applied.

Almost all graduates have been employed by industry in the same year of graduation. The professional activities of the majority of graduates meet the programme providers' expectations. Noticeable is the rather small number of graduates who continue their studies towards a MA degree; e.g. in the year 2012 six students stayed at the University for a MA study programme.

6. Programme management

The programme management makes use of the Academic Information System (AIS) which allows an integral management of all modules, the staff assignment and the time planning of the different lecturing events. However, AIS is presently not used for programme quality assessment functions. KU presently implements a project „Quality Management System Development and Implementation of Klaipeda University". The documented responsibility of the BA study programme at Klaipeda University is the head of EE department.

The responsibilities for decisions and monitoring of the implementation of the study programme are formally defined but due to their recent establishment not yet clearly assessable. Information and data on the implementation of the study programme are regularly collected and analysed.

A regular review of the study programme is planned in order to respond to rapid technological changes. A study programme committee SPC responsible for the specifics of the BA

study programme is in place but its composition is not sufficiently oriented to the specific needs of the EE study programme in order to guarantee a high quality level in the future. Although the University has a well specified internal study quality assurance system with a hierarchical structure ranging from the EE Dean‘s Offices, to the Council of the Faculties and to the University Senate practical experience with this system is not yet available because is has been installed only recently. The quality assessment system consists of 8 study quality fields: the mission and aims of the University (suitability); study administration (effectiveness); student support (effectiveness); students‘ progress (academic, professional, and personality improvement); the qualification of the academic staff (suitability and professional development); facilities and learning resources (suitability, sufficiency, and accessibility); external relations (usefulness and development); and study quality assurance (effectiveness). The study programme should be assessed once per year. The outcomes of the internal evaluations of the study programme should be used for the improvement of the programme; but no experience has yet been obtained how this feedback will be actually implemented.

No formal evaluations by external stakeholders (graduates, employers) take place; they bring their comments and suggestions in an informal way to the knowledge of the responsible.

The student association regularly organizes a questionnaire with respect to the didactical properties of individual lecturers. The results of these questionnaires are brought to the attention of the students and the departmental dean. So far no action has been taken on the basis of these questionnaires.

Although the aims and methods for the quality assessment are fully described no practical experience has been reported how this process works in reality because its implementation only happened very recently. The comments given in chapter 2.2 of this report indicate that there is sufficient room for further improvement of the actual study programme.

Also the paperwork of the Self-Evaluation Report could be better prepared (everything written is to be checked and be consistent with other documents, official databases, websites and the report itself). This is due that some missing information was presented to the expert group only after the on-site visit. Thus, the new provided information was not included in the final report for this programme as it was not presented earlier.

III. RECOMMENDATIONS

1. Develop and apply an effective strategic plan to increase the number of full-time students of the BA study programme in the first semester.

2. Improve the content of several lectures in order to bridge the gap between the actual programme and the faculty's vision on smart systems.

3. The staff turnover must be improved in order to give adequate career perspectives to the associate professors and lecturers.

4. Since the actual study programme management is only a short time in operation it needs to be carefully monitored over the next 12 months.

5. The high potential of international mobility programmes should be better used by teachers and students. Incentives should be provided for expanding the interest in international exchange.

6. International scientific research activities and the resulting international publication by the staff should be better supported (financially and organisationally) by the University administration in order to increase the international visibility of KU and the department of EE.

7. The uniformly high marking of BA theses should be changed towards a better usage of the available range of marks between 5 and 10.

IV. SUMMARY

The BA study programme is in accordance with the legal requirements. Considerable improvements have been achieved since the last international evaluation of this study programme in 2010. The EE department developed an interesting and innovative vision with respect to future smart systems. However, the scope and actual study programme is not yet fully coherent and consistent in its content with this vision. Several lectures need modernisation and better coordination with the fast changing requirements of EE. Several subjects presently offered in the BA study programme may be replaced by core subjects in electrical engineering. The industrial placement of the students during their study programme is very good and helps to develop the understanding of industrial live for the students. The team work between the students is requested in different subjects. The number of students entering the BA study programme has been decreasing; this trend must be reverted through a sustainable strategy supported by the department, the faculty and the University. The teaching staff has good teaching experience. The human resources of the teaching staff should be increased because one Ph.D. student in the department is not sufficient for the required staff turnover expected in the next few years. The regular didactic assessment of all teachers is important in order to keep the quality of lectures high. The international exchange of the teaching staff should be increased both with respect to outgoing and incoming teachers. More international research activities should be carried out by the staff members. Some of the students are actively involved in the research programme of the department; this depends very much on the teacher. The laboratory equipment has been modernized in the last few years but this process must be continued in the future. The quality assessment results should be publicized on a regular basis in order to show the interaction between the questionnaires´ results and the improvement of the study programme. The implemented changes based on the recommendations of the international review in 2010 are appreciated. The student assessment is well documented and works well in practice. The uniformly high marking of BA theses should be changed towards a better usage of the available range of marks between 5 and 10. The teaching staff strongly motivates the students and offers them personal tuition in case of difficulties. The employment of the graduates usually occurs in the year of graduation. The graduates and the employers express their satisfaction with the BA study programme in electrical engineering at KU with respect to the study programme and to the number of graduates leaving the university each year.

V. GENERAL ASSESSMENT

The study programme *Electrical engineering* (state code – 612H62003) at Klaipėda University is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Staff	3
4.	Material resources	3
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	**18**

*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.

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Paulius Simanavičius

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Klaipėdos universiteto studijų programa *Elektros inžinerija (valst*ybinis kodas – 612H62003) 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	3
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	**18**

* 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)

<...>

IV. SANTRAUKA

Bakalauro studijų programa atitinka teisinius reikalavimus. Po paskutinio studijų programos tarptautinio vertinimo 2010 m. ji buvo gerokai patobulinta. Elektros inžinerijos katedra išplėtojo įdomią ir inovatyvią viziją ateities išmaniųjų sistemų atžvilgiu. Vis dėlto apimtis ir tikroji studijų programa dar nėra visiškai nuosekli ir savo turiniu neatitinka vizijos. Reikia modernizuoti kelias paskaitas ir greičiau prisitaikyti prie sparčiai kintančių elektros inžinerijai keliamų reikalavimų. Kelis studijų dalykus, kurie šiuo metu yra įtraukti į bakalauro studijų programą, galima pakeisti pagrindiniais elektros inžinerijos studijų dalykais. Studentų praktika šioje studijų programoje – labai gera ir padeda studentams suprasti šią pramonę. Įvairiuose studijų dalykuose studentams reikia atlikti grupinį darbą. Studentų, stojančių į bakalauro studijų programą, skaičius sumažėjo; šią tendenciją reikia keisti taikant tvarią strategiją, kurią turi palaikyti katedra, fakultetas ir universitetas. Dėstytojai turi gerą dėstymo patirtį. Dėstytojų žmogiškuosius išteklius reikėtų didinti, nes vieno doktorantūros studento katedroje nepakanka reikiamai personalo kaitai, numatomai per ateinančius kelerius metus,

užtikrinti. Svarbu reguliariai atlikti visų dėstytojų didaktinį vertinimą, kad būtų išlaikoma aukšta paskaitų kokybė. Reikėtų didinti tarptautinius dėstytojų mainus tiek kalbant apie išvykstančius, tiek apie atvykstančius dėstytojus. Personalas turėtų vykdyti daugiau tarptautinės mokslinės veiklos. Kai kurie studentai aktyviai dalyvauja katedros tyrimų programose; tai labai priklauso nuo dėstytojo. Pastaraisiais metais laboratorinė įranga buvo atnaujinta, tačiau ateityje šį procesą reikėtų tęsti. Kokybės vertinimo rezultatus reikėtų reguliariai skelbti, siekiant parodyti ryšį tarp atsakymų į klausimynus rezultatų ir studijų programos tobulinimo. Teigiamai vertiname pagal 2010 metais atlikto tarptautinio vertinimo rekomendacijas įvykdytus pakeitimus. Studentų vertinimas – tinkamai aprašytas dokumentuose ir gerai vykdomas praktikoje. Reikėtų keisti praktiką aukštais balais vertinti visus bakalauro baigiamuosius darbus ir labiau išnaudoti pažymius nuo 5 iki 10. Dėstytojai stipriai motyvuoja studentus ir iškilus sunkumams siūlo jiems asmenines konsultacijas. Absolventai dažniausiai įsidarbina baigiamaisiais metais. Absolventai ir darbdaviai nurodė, kad yra patenkinti Klaipėdos universiteto Elektros inžinerijos bakalauro studijų programa tiek dėl pačios studijų programos, tiek dėl kasmet universitetą baigiančių absolventų skaičiaus.

III. REKOMENDACIJOS

1. Parengti ir taikyti veiksmingą strateginį planą, skirtą nuolatinių bakalauro studijų programos studentų skaičiui pirmame semestre didinti.

2. Tobulinti kelių paskaitų turinį, siekiant panaikinti neatitikimus tarp realios studijų programos ir fakulteto vizijos išmaniųjų sistemų atžvilgiu.

3. Reikia gerinti personalo kaitą, kad docentams ir lektoriams būtų sudarytos tinkamos karjeros perspektyvos.

4. Kadangi reali studijų programos vadyba vykdoma neilgai, ateinančius 12 mėnesių reikia ją atidžiai stebėti.

5. Dėstytojai ir studentai turėtų labiau išnaudoti didelį tarptautinio mobilumo programų potencialą. Reikėtų organizuoti iniciatyvas, skirtas susidomėjimui tarptautiniais mainais didinti.

6. Universiteto administracija turėtų labiau remti (finansiškai ir organizacine prasme) tarptautinę mokslinę tiriamąją veiklą ir susijusias personalo tarptautines publikacijas, kad didėtų Klaipėdos universiteto ir Elektros inžinerijos katedros tarptautinis matomumas.

7. Reikėtų keisti praktiką aukštais balais vertinti visus bakalauro baigiamuosius darbus ir labiau išnaudoti pažymius nuo 5 iki 10.

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