



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Vilniaus kolegijos

***TELEKOMUNIKACIJŲ STUDIJŲ PROGRAMOS***  
**(65301T206, 653H64001)**  
**VERTINIMO IŠVADOS**

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**EVALUATION REPORT**  
**OF *TELECOMMUNICATIONS* (65301T206, 653H64001)**  
**STUDY PROGRAMME**

At Vilnius College

Grupės vadovas:  
Team leader:

Prof.dr. Palle Jeppesen

Grupės nariai:  
Team members:

Prof.dr. Igor Kabashkin

Prof.dr. Luis Torres

Mr. Edvardas Linkevičius

Mr. Andrius Kučinskas

Išvados parengtos anglų kalba  
Report language - English

Vilnius  
2012

## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Telekomunikacijos</i>
Valstybiniai kodai	65301T206, 653H64001
Studijų sritis	Technologijos mokslų
Studijų kryptis	Elektronikos inžinerija, Elektronikos ir elektros inžinerija
Studijų programos rūšis	Koleginės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3.5), iššęstinė (4.5)
Studijų programos apimtis kreditais	210
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Telekomunikacijų inžinerijos profesinis bakalauras
Studijų programos įregistravimo data	2008-01-17

## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Telecommunications</i>
State code	65301T206, 653H64001
Study area	Technological Sciences
Study field	Electronic Engineering
Kind of the study programme	College Studies
Study Cycle	First
Study mode (length in years)	Full-time (3.5), part-time (4.5)
Volume of the study programme in credits	210
Degree and (or) professional qualifications awarded	Professional Bachelor of Telecommunications Engineering
Date of registration of the study programme	17.01.2008

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## I. INTRODUCTION

An external evaluation of the Telecommunication study programme from Vilnius College, has been conducted by an international expert group consisting of Prof. Dr. Palle Jeppesen (leader of the group), Prof. Dr. Igor Kabashkin, Prof. Dr. Luis Torres, Mr. Edvardas Linkevičius and Mr. Andrius Kučinskas. The group performed an on-line analysis of the self-evaluation report before the visit, and held meetings during the visit with the administrative staff of the Faculty of Electronics and Informatics and Computer Engineering and Telecommunications Department, the workgroup in charge of the preparation of the self-evaluation report, teaching staff and students of the study programme, as well as with recent graduates and employers.

It is first official external evaluation of the Telecommunication engineering study programme by the Centre of the Studies Quality Assessment (SQAC). A 3 year programme under this name was launched in the Faculty of Electronics and Informatics on 1 September 2002 and it has been regularly evaluated in accordance of national rules.

The main objectives of the international expert group have been to assess the information provided in the self-evaluation report, as well as to gather more facts and evidences in the on-site visit in order to perform a fair evaluation of the programme.

The international expert group would like to acknowledge the help and all facilities provided by the various Faculty of Electronics and Informatics and Computer Engineering and Telecommunications Department to perform the evaluation. The international expert group would like to acknowledge as well all the effort made by Centre for Quality Assessment in Higher Education and in particular Mr. Pranas Stankus who has allowed a very smooth evaluation process.

## II. PROGRAMME ANALYSIS

### *1. Programme aims and learning outcomes*

The Telecommunication Engineering Bachelors programme of VC (Vilnius College) has been taught since 2008. There are full-time and part-time options. The study programme does not provide any specializations.

The aim of this Programme is directly related to the Government program of Lithuanian Republic set in resolution No. 1270 "National Lisbon strategy implementation program"(State news 2005, No. 78-2823) of November 22, 2005, where the goals for the creation of the knowledge society and knowledge-based economy in Lithuania are indicated.

The overall aims of the programme are:

- to prepare highly qualified Professional Bachelors of Telecommunications Engineering who are able to design telecommunication networks, select and monitor telecommunication systems and their equipment, model a network for providing services and technologies for downloading voice, video, data, required by customers, are able to efficiently install and operate sophisticated telecommunication equipment, detect and remove system and equipment faults, set up their own business.

- to develop specific and general (creativity, flexibility, dynamism, criticism, knowledge of foreign languages, computer and mathematical literacy, self – esteem, and continuous self-development) personal skills as well as attitudes towards civil values.
- to provide professional higher education, enabling graduates to successfully integrate and adapt to the economy utilizing latest developments.
- to ensure formation of professional competences, assuring self- establishment and career in the labor market, to be able to adapt easily and quickly to constantly changing situations.

The aims of the Telecommunications study programme are publicly available on the website of Vilnius College, the website of the Faculty of Electronics and Informatics and promotional booklet of VC “Studies at Vilniaus kolegija 2012”.

Learning outcomes of the study programme are compatible with general and professional competences which a prospective professional bachelor of telecommunications engineering must acquire. The learning outcomes focus on deeper understanding of the functioning principles of engineering equipment, the designing of telecommunication networks, the ability to implement technical solutions of telecommunications, the maintenance and operation of telecommunication equipment and general competences such as the ability to successfully solve problems, the ability to communicate efficiently with colleagues, managers and clients.

In this context, the programme aims and learning outcomes are clearly defined. They are also publicly accessible as shown in some leaflets and web page of the VC also they can be found in information board of College building.

A very good and detailed study has been made of the needs of the public sector and labour market. Many questionnaires have been sent to many telecommunication Lithuanian companies to find out about needs of the national labour market. In addition, a complete search study on the needs of the European market in the Telecommunication sector has been carried out as well. To enhance the competitiveness of the program in the future and in order to broaden the future market potential of actual Lithuanian graduates and as there is no doubt about the importance of the globalization telecommunications market, the study should take into account the global market beyond the European perspective as well. Some hints about the research needs in both the Lithuanian and European context would have helped to focus on this area. Vision about possible labour market needed in emerging countries would have been welcomed. The needs of these global markets should be taking into account to redefine the programme aims and learning outcomes in the mid-term future.

## ***2. Curriculum design***

The curriculum design of the Telecommunication Engineering study programme is based on 210 credits. The programme offers full-time and part-time options. The curriculum design meets all legal requirements. Bologna process recommendations have been taken into account as well. Theoretical and practical teaching according to the course schedule is implemented. Study programme is in general coherent but some remarks would need to be taken into account as noted in the following. The involvement of the programme in the CDIO (CDIO is a new teaching approach based on Conceiving, Designing, Implementing and Operating real-world systems and products) learning approach is very well appreciated.

The curriculum of the program is well balanced: general college study subjects - 21 credits, study field subjects - 177 credits, optional subjects - 12 credits. 8-week Professional Practicum and 10-week Final Practicum are included in the programme and give good opportunities for

student to obtain practical skills to work with the newest equipment and with the new sophisticated technologies. It is appreciated that such modules provide some added value to the students. Subjects have a clear unambiguous name associated with their content. As a particular note, Signals and Circuits is a mix of spectrum, linear systems, modulations and theory of antennas and the name could be changed to better reflect the contents.

However, and given the importance of multimedia and wireless communications, cloud technologies, mobile applications some courses in this area may give an added value to the programme.

During the meeting, the administration staff stated that they are willing to change some broad topics and offer more innovative options.

Virtual learning environment Moodle is very actively used in VC and in the programme. In the period of last two years almost all teachers have created the courses in Moodle. During the meeting with students all of them confirmed their active use of virtual learning resources. VC has very positive trends in development of distance learning activities.

### ***3. Staff***

An average of 28 faculty staff members have been involved in the Telecommunications programme in the period of 2008-2012. Three of them hold a Ph.D. and 23 teachers have real practical experience in telecommunication industry. There are 35 % of college teachers who are under 44 years of age. There are 41 % of college teachers who are older than 60 years. These college teachers are good specialists, having a great academic and practical experience and being able to pass this experience to younger college teachers.

VC has problems attracting teachers. However, interview of expert group with alumni and students demonstrated the interest of many participants after graduation to stay in college as teachers.

The staff providing the programme meets the legal requirements. The teaching staff turnover is quite acceptable.

In the Department of Telecommunication engineering, three settled college teachers work half-time. Their main workplaces are in the companies of modern telecommunications. Participation of these college teachers in the process of teaching and department activity forms conditions for constant updating the knowledge about the newest telecommunication technologies and services.

In Telecommunications study programme student/teacher ratio in lectures and practical classes is 14 students for 1 teacher, which is very good and assures a good contact between lecturers and students and proves adequate to ensure learning outcomes.

The higher education institution creates conditions for the professional development of the teaching staff necessary for the provision of the programme. Systematically (every 5 years) performance evaluation of teaching staff is performed to evaluate academic work. Teachers present self-analysis of their 5-year academic work, which is evaluated by the colleagues, students responses are analyzed and everything is discussed in the meeting of Department teaching staff, by the Committee of Competition and Performance Evaluation. The final decision on teachers' qualification is made by the Committee of Competition and Performance Evaluation of the Faculty.

In the international mobility area, staff has opportunities to go to other international universities. Unfortunately this opportunity was not used by academic staff. This lack of international mobility threatens the international vision of the staff and of the College in general and should be improved.

In the research context, the teaching staff of the programme is not involved wide enough in national and international research directly related to the telecommunication engineering. Efforts should be made by both, the College to provide the adequate environment and the teaching staff to increase their involvement in high quality international research, especially among the junior faculty.

In order to increase the international activities of the College and to be able to attract foreign students in the future, English teaching activities should be potentiated.

#### ***4. Facilities and learning resources***

The space allocated to each student and the corresponding studying conditions seem sufficient both in their size and quality to assure a comfortable learning environment. All laboratories have excellent opportunities to develop practical skills in the field of operation of telecommunications systems. The College has CISCO Academy. Students have opportunity to be tested and receive certificates of CISCO Academy. The College has special multimedia laboratory based on Mac computers, it have possibilities to analyze DVB-T networks in labs. Currently new equipment public procurement is being performed under the project “Modernization of engineering field study programme teaching base oriented to technological innovations and modern educational environment at Vilniaus kolegija, Faculty of Electronics and Informatics”.

However, although it is completely understood that the latest equipment may not be updated constantly for economic reasons, some laboratories were found outdated with regard to the state of the art in Telecommunications.

Update of the equipment relies to some extent on the industrial partners. This is a very good sign of cooperation between the Vilnius College and the companies, but may prove insufficient to accommodate the latest developments.

Library facilities are exceptionally good; students have access to a great variety of books, journals, different teaching materials and databanks including – although in an indirect manner - the important IEEE journals; access is possible both physical or via the Internet. College is implementing a successful program of library resources development. In 2011 more than 13 thousand new books (64% in Lithuanian, 34% in foreign languages) were purchased. In 2012 e-book collection eBooks on EBSCO (66 thousand full-text books) has been subscribed and 171 title newspapers and magazines were offered to the readers, 116 (68%) of them in Lithuanian and 55 (32%) in foreign languages.

Almost all textbooks are in Lithuanian which indicates a good involvement of national faculty in the field. However, more English books should be used which would provide a double added value. First, as the options are much wider, the students would have access to the latest developments in the Telecommunication area. Secondly, the students would be exposed to all technical English terms in the field which would offer additional skills, as all the updated literature is in English.

There are 11 laboratories oriented on telecommunications studies with relevant equipment, lab mock-ups, stands and computers with necessary software in the VC. Material base of the laboratories is provided with modern equipment, for example: cable analyzer LAN DTX-1800, cable line fault simulator E-4171, optical reflectometer TEMPO/GREELEE 920XC-20C, electronic circuit training system K&H KL-200, training system NATIONAL INSTRUMENTS ELVIS II with 10 workplaces, digital TV universal training system PROMAX EU-845, training system PROMAX ED-845, GSM/GPRS, GPS protocols training system K&H MFG DGS-100, spectral analyzer GOOD WILL GPS-827, optical fibers splicer and measurement device FUJICURA FSM-60S which allows students to acquire work-based skills.

### ***5. Study process and student assessment***

The admission requirements are well founded. The admission to the Telecommunications first cycle study programme in Faculty of Electronics and Informatics is carried out according to the Procedure description of the General admission to Lithuanian higher education first cycle and integrated studies issued in 2011. This description has been prepared by the Association of Lithuanian higher education to organize the general admission and approved by the President of the Republic of Lithuania. According to the Republic of Lithuania Law on Science and Studies the persons with the secondary education are accepted to the state-funded and paid places. The admission is carried out by a tendering procedure. The admission is carried out in two stages: the general admission under a common application to all the major education studies' programs of the higher schools or program groups and an additional admission to the free remaining state-funded and paid study places.

The detailed information about the first cycle of Telecommunications study programme and admission to Lithuanian higher schools' first cycle programmes is published in the College website. Students are encouraged to achieve good results by supplying them with complete information about their studies, the procedure, the usefulness of subjects, level of their complexity and employment perspectives.

The studies are organized in autumn and spring semesters that each last 16 weeks, according to the schedule announced in the College Internet page and the annual VC Study Programmes edition, following the individual plans and timetables. The organization of the study process ensures an adequate provision of the programme and the achievement of the learning outcomes. However, the addition of some more related Telecommunication courses at the expense of some other courses as explained in the curriculum design section, would be more beneficial for the achievement of the learning outcomes.

College is more oriented on development of practical skills of students. Research activities are quite limited for students. According to the self-evaluation report, the most talented students are attracted to the scientific-research activity that is carried out by the lecturers. However, from the information found out on the site visit, not much involvement of students in research activities has been observed. In addition, and due to the limited research activity of the teaching faculty, not very much student involvement in research can be expected.

Students are enrolled in Telecommunications study programme competition according to competition grades. Competition grades score of the enrolled students shows that not all prospective students are well prepared for studies. This fact is confirmed by a number of excluded students, which is directly dependant on admission grades score. Efforts should be made to attract more qualified students with higher grades of secondary education.



Students have the opportunity to participate in the international mobility programmes. However, as explained in the self-evaluation report and confirmed on the site-visit, the number of participating students is very limited. Some actions by the Faculty of Electronics and Informatics to promote these international exchanges would be very welcomed. Particular actions could be to increase the student's stipend, or the Faculty budget, needed to cover travel and living expenses and to increase the number of international institutions involved in the mobility plan. In addition, some additional effort to advertise more intensively the advantages of going abroad would be very useful for the students.

The higher education institution ensures an adequate level of academic and social support. In addition, the assessment system of student's performance is clear, adequate and publicly available.

The students' achievement assessment criteria are made public at the beginning of the semester: during the first lecture, the lecturer introduces students to the study subject, purpose, themes, the individual work schedule of tasks and their impact on the final grade. In this context, the assessment system of student's performance is clear, adequate and publicly available. In addition, the professional activities of the majority of graduates meet the programme providers' expectations.

From meetings with the teachers and students the expert team got the impression that the communication between Faculty and students is good and constructive. Students have the opportunity to communicate with the teachers both during the training process and outside it.

## ***6. Programme management***

The Telecommunications Study Programme Panel, whose composition is approved by Order of the Rector of Vilniaus kolegija, is responsible for study programme delivery and quality assurance. The Study Programme Panel consists of 7 members including 2 social stakeholder representatives, 4 academic staff representatives and 1 student representative. The Study Programme Panel together with teachers of the programme analyse deficiencies of the study programme and its delivery disclosed during the study process, present proposals for their elimination and study programme enhancement. This ensures effective feedback between members of the Panel and the teachers responsible for the content of their taught subjects, study methods, methodological material, and learning outcomes.

The members of the Study Programme Panel have great pedagogical and programme expert experience. The Study Programme Panel is responsible for the structure of the programme, corresponding to the regulation of technological sciences and other requirements of the first cycle study programmes. The department implementing the programme is responsible for the study subject module content, level and methodical preparation.

All college teachers are involved in the preparation of the study programmes. The modules of the subjects of the study programme, after assessing the remarks and wishes of social partners, are arranged in the departments.

In order to ensure the inner study quality in VC, the quality management system complying with the European standard ISO 9001:2000 is implemented for all the college processes. In 2006-2008 VC carried out the ESF Project "Development of Vilnius College Quality Assurance System". The Quality Guide which defines quality policy, quality management system, responsibility for the quality management system, the main processes and matrix of their hosts, participants' responsibilities is prepared. Descriptions of the processes are

prepared according to the requirements of quality management system standard ISO 9001:2008. Internal quality assurance system exists at VC functioning according to the implemented and constantly improved quality management model into which Universal Quality Management, EFQM, Benchmarking and ISO 90001 quality management principles are integrated. The Rector's Order "Concerning responsibility in quality management system" assigns responsibilities for designing, delivery and monitoring study programmes". The documents of VC quality management system integrate the national and international requirements, which are relevant for the organising and implementing college quality studies. These clearly and precisely structure the controlled processes, which generate the direct value.

When implementing and renewing the study programme of Telecommunication engineering, the following study processes are controlled: Study programme preparation and improvement; Subject module preparation and improvement; Knowledge assessment and advancement monitoring; Thesis preparation; Practice organisation; Study process implementation control; Human resources management; Self analysis and feedback; Admission to the college.

Since 2011 VC implements the ESF (European Social Funding) project "Improvement of quality management system at Vilnius kolegija. The aim of the project is to prepare relevant study quality management system model and measures for its implementation and develop administrative staff's special abilities for implementing quality assurance management objectives.

Strict compliance with international standards in quality management provides high quality management of study programme in all aspects.

VC in general, and in particular the program have well-designed development plan. The plan includes an extended analysis of the weaknesses of the program, as well as a detailed plan for the short and long term development. The Development Programme of the Vilnius College and Telecommunications study programme are publicly available on the website of Vilnius College, the website of the Faculty of Electronics and Informatics and promotional booklet "Integrated Development Strategy of Vilnius Kolegija until the year 2020".

### III. RECOMMENDATIONS

#### **Programme aims and learning outcomes**

1. Take into account the global market beyond the European perspective.
2. Take into account possible labour markets needed in emerging countries.
3. Take into account the research needs in both the Lithuanian and European context.

#### **Curriculum design**

1. It would be useful to include in the programme such courses as Optical and Multimedia Communications.
2. Consider to change the name of the course Signals and Circuits to reflect better the contents.
3. More attention should be paid to students' independent work, providing them with more versatile assignments, assigning more group work tasks to develop teamwork skills, communication skills.

#### **Staff**

1. Strong efforts should be made to involve faculty staff in stays in international universities and research institutions.
2. Measures should be taken to establish a more active involvement of teachers in the mobility programme ERASMUS.
3. More attention should be paid to innovative teaching and learning methods, applied research, create conditions for developing teachers' foreign language skills.

#### **Facilities and learning resources**

1. Strong efforts should be made to have the latest equipment in the laboratories.
2. Efforts should be made to increase the number of English textbooks to be used in the courses.

#### **Study process and student assessment**

1. Efforts should be made to involve students in research activities.
2. Strong efforts should be made to involve students in international mobility programmes.
3. Efforts should be made to attract more advanced students with higher grades of secondary education.

## IV. SUMMARY

### **Programme aims and learning outcomes**

The programme aims and learning outcomes are clearly defined.

### **Curriculum design**

The curriculum design meets all legal requirements. Bologna process recommendations have been taken into account as well. Theoretical and practical teaching according to the learning outcomes is implemented. Study programme is in general coherent.

It would be useful include in the programme such courses as Optical and Multimedia Communications.

### **Staff**

The staff assures a good academic level. The staff providing the study programme meets legal requirements. The lecturers/students ratio is very good.

Staff should be much more involved in international stays and cutting edge research efforts.

### **Facilities and learning resources**

The space allocated to each student and the corresponding studying conditions are good enough to assure a comfortable learning environment.

Efforts should be made to have the latest technological equipment in the laboratories.

### **Study process and student assessment**

The admission requirements are well founded. The higher education institution ensures an adequate level of academic and social support. In addition, the assessment system of students' performance is clear, adequate and publicly available.

Strong efforts should be made to involve students in international mobility programmes.

### **Programme management**

Internal quality assurance measures seem to be effective and efficient. A large number of practical telecommunication study's quality assurance methods are used. Information and data on the implementation of the programme are regularly collected and analyzed.

## V. GENERAL ASSESSMENT

The study programme *Telecommunications* (state codes – 65301T206, 653H64001) at Vilnius College 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	4
2.	Curriculum design	4
3.	Staff	3
4.	Material resources	4
5.	Study process and assessment (student admission, study process, student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	4
	<b>Total:</b>	<b>22</b>

\*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. Emeritus Dr. Palle Jeppesen

Grupės nariai:

Team members:

Prof.dr. Igor Kabashkin

Prof.dr. Luis Torres

Mr. Edvardas Linkevičius

Mr. Andrius Kučinskas

<...>

## V. APIBENDRINAMASIS ĮVERTINIMAS

Vilniaus kolegijos studijų programa *Telekomunikacijos* (valstybinis kodas – 65301T206, 653H64001) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	4
2.	Programos sandara	4
3.	Personalas	3
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	4
	<b>Iš viso:</b>	<b>22</b>

\* 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

### Programos tikslai ir studijų rezultatai

Programos tikslai ir studijų rezultatai yra aiškiai apibrėžti.

### Studijų turinio struktūra

Studijų turinio struktūra tenkina visus teisinius reikalavimus. Buvo atsižvelgta taipogi į Bolonijos proceso rekomendacijas. Vykdomas teorinis ir praktinis mokymas pagal studijų rezultatus. Studijų programa yra nuosekli

Būtų naudinga įtraukti tokius kursus kaip Optinės ir Multimedijos komunikacijos į programą.

### Personalas

Personalas užtikrina aukštą akademinį lygį. Studijų programą vykdančys darbuotojai atitinka teisinius reikalavimus. Dėstytojų/studentų santykis yra labai geras.

Darbuotojai turėtų daug aktyviau dalyvauti tarptautinėse stažuotėse ir naujausių mokslinių tyrimų veiklose.

## **Priemonės ir mokymosi ištekliai**

Vienam studentui tenkanti erdvė ir atitinkamos mokymosi sąlygos yra pakankamai geros, kad galėtų užtikrinti patogią mokymosi aplinką.

Reikėtų pasistengti aprūpinti laboratorijas naujausia technologine įranga.

## **Studijų procesas ir studentų vertinimas**

Studentų priėmimo reikalavimai yra gerai pagrįsti. Aukštojo mokslo mokykla užtikrina reikiamą akademinės ir socialinės paramos lygį. Be to, studentų vertinimo sistema yra aiški, tinkama ir viešai prieinama.

Reikėtų dėti dideles pastangas, siekiant įtraukti studentus į tarptautines mobilumo programas.

## **Programos valdymas**

Vidaus kokybės užtikrinimo priemonės atrodo esančios veiksmingos ir efektyvios. Naudojama daug praktinių telekomunikacinių studijų kokybės užtikrinimo metodų. Informacija ir duomenys apie programos vykdymą yra reguliariai renkama ir analizuojama.

## **III. REKOMENDACIJOS**

### **Programos tikslai ir studijų rezultatai**

1. Atsižvelgti į pasaulinę rinką už Europos ribų.
2. Atsižvelgti į galimas darbo rinkas, kurios reikalingos besivystančiose šalyse.
3. Atsižvelgti į tyrimų poreikius tiek Lietuvos, tiek Europos kontekste.

### **Studijų turinio struktūra**

1. Būtų naudinga įtraukti tokius kursus kaip Optinės ir Multimedijos komunikacijos į programą.
2. Apsvarstyti galimybę pakeisti kursų Signalai ir Grandinės pavadinimus, kad jie tiksliau atspindėtų kursų turinį.
3. Daugiau dėmesio reikėtų skirti studentų savarankiškam darbui, skiriant jiems įvairesnes užduotis, daugiau grupinių užduočių, siekiant vystyti jų komandinio darbo ir bendravimo įgūdžius.

### **Personalas**

1. Reikėtų stipriai pasistengti, kad fakulteto personalas vyktų į tarptautinius universitetus ir tyrimų institucijas.
2. Reikėtų imtis priemonių, skatinančių dėstytojų aktyvesnį dalyvavimą ERASMUS mobilumo programoje.
3. Daugiau dėmesio reikėtų skirti naujoviškiems mokymo ir mokymosi metodams, taikomiesiems tyrimams, sukurti sąlygas mokytojų užsienio kalbos žinių plėtrai.

## **Priemonės ir mokymosi ištekliai**

1. Reikėtų dėti dideles pastangas, kad laboratorijos būtų aprūpintos naujausia įranga.

2. Reikėtų pasistengti padidinti kursų metu naudojamų angliškų vadovėlių skaičių.

### **Studijų procesas ir studentų vertinimas**

1. Reikėtų pasistengti įtraukti studentus į mokslinių tyrimų veiklas.
2. Reikėtų dėti dideles pastangas, siekiant įtraukti studentus į tarptautines mobilumo programas.
3. Reikėtų dėti pastangas, siekiant pritraukti pažangius studentus su aukštesniais vidurinio mokslo pažymiais.