



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO  
**STUDIJŲ PROGRAMOS**  
*AVIACIJOS MECHANIKOS INŽINERIJA (valstybinis kodas –  
621H42001)*  
**VERTINIMO IŠVADOS**

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**EVALUATION REPORT**  
*OF AVIATION MECHANICS ENGINEERING (state code –  
621H42001)*  
**STUDY PROGRAMME**  
At VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

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Išvados parengtos anglų kalba  
Report language - English

Vilnius  
2015

## DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Aviacijos mechanikos inžinerija</i>
Valstybinis kodas	621H42001
Studijų sritis	Technologijos mokslai
Studijų kryptis	Aerospace inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Antroji
Studijų forma (trukmė metais)	Nuolatinė (2)
Studijų programos apimtis kreditais	120
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Aeronautikos inžinerijos magistras
Studijų programos įregistravimo data	1997 m. gegužės 15 d.

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## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Aviation Mechanics Engineering</i>
State code	621H42001
Study area	Technology Sciences
Study field	Aerospace Engineering
Type of the study programme	University studies
Study cycle	Second
Study mode (length in years)	Full-time (2)
Volume of the study programme in credits	120
Degree and (or) professional qualifications awarded	Master in Aeronautical Engineering
Date of registration of the study programme	19-05-1997

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The Centre for Quality Assessment in Higher Education

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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 the 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 the 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 SKVC. Along with the self-evaluation report and annexes, no additional documents have been provided by the HEI before, during and/or after the site-visit.

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

Vilnius Gediminas Technical University (hereafter – VGTU) is a public higher education institution. It is one of the largest universities in Lithuania and has the ambition be a leader of training and research in the field of technologies and engineering in the Baltics. It offers Bachelor and Master programmes as well as PhD programmes.

VGTU consists of nine faculties and one institute (regarded as a faculty). Among them the “Antanas Gustaitis Aviation Institute” (AGAI) is devoted to aviation Technologies and Engineering. The *Aviation Mechanics Engineering* second cycle study programme awards the degree of “Master in aeronautics engineering”. The purpose of this programme is to prepare the future Master graduates to work mainly in the design and engineering departments of various aviation enterprises and air transport offices. It is a two-year programme with 120 ECTS and it should be noted that this programme is unique in Lithuania.

AGAI was founded in 1993 and has, since then, been directed by Prof. habil. dr. Jonas Stankunas.

The previous external evaluation was performed in April 2012. The study programme was accredited for three years until August 2015. The Institute, taking into account the recommendations of the 2012 report, performed an internal self-evaluation assessment in 2014.

A Self-evaluation group was thus formed on 25 March 2014. This team was composed of six academic staff and lead by Professor Eduardas Lasauskas, Head of the department of Aviation Mechanics. Generally the Self-evaluation report provides a fair and complete description and evaluation of the study programme.

The objective of this report is to present the analysis of the *Aviation Mechanics Engineering* Master programme (state code 621H42001). The site-visit was carried out on the 3<sup>rd</sup> of February 2015. The findings of this evaluation are intended to help VGTU, and more specially AGAI, to improve its Master study programme of *Aviation Mechanics Engineering* and to inform the public about the quality of this study programme.

#### ***1.4 The Review Team***

The review team was assembled in accordance with the *Expert Selection Procedure*, approved by Order No 1-55 of 19 March 2007 of the Director of the Centre for Quality Assessment in Higher Education, as amended on 11 November 2011. The team conducted the Review Visit to HEI on 3<sup>rd</sup> February 2015.

1. Prof dr. David Kennedy (team leader), Head of Mechanical Engineering Department, Dublin Institute of Technology, Ireland.
2. Dr. Rynno Lohmus, Head of the commission of Estonian Higher Education Quality Agency; Senior Researcher at Faculty of Science and Technology, Institute of Physics, University of Tartu, Estonia.
3. Prof dr. François Resch, Expert of the French Engineering Accreditation Agency, Emeritus Professor, SeaTech Engineering School, University of Toulon, France.
4. Prof. dr. Jolanta Janutėnienė, Head of the Mechanical engineering Department, Faculty of Marine Engineering, Klaipėda University, Lithuania.
5. Dr. Vigantas Kumšlytis, Manager of materials engineering and technical analysis at Public Company “Orlen Lietuva”, Lithuania.
6. Mr. Mantas Kinderis, 3<sup>rd</sup> year student of *Car Electronics* study programme, Vilnius College of Technology and Design, Lithuania.

## II. PROGRAMME ANALYSIS

### 2.1. Programme aims and learning outcomes

The purpose of the programme is clearly stated as to prepare specialists of aeronautics engineering to be able to solve complex issues in aeronautics (SER page 9) and in the field of airplane design. The study programme learning outcomes are clearly defined and divided into four groups, which are: knowledge, cognition, special skills and general abilities. Although some of these statements are correct, they are not well organized and need to be rewritten. For example, one of the aims of the study programme is to: “develop the ability to understand the interrelations between various aviation mechanics engineering issues and their possible social and ethical” (SER page 8). This lacks clarity of meaning and does not say what the students will be able to do after graduating.

The study programme’s learning outcomes are distributed into five groups: knowledge, cognition, special skills and personal and social abilities. In a general statement, verbs such as “understand”, “gain knowledge of” or “learn” should be avoided as they are not observable and are therefore difficult to measure as in Z1 to Z4, GV1 to GV4, CG3, AG1 and point 18 of the SER. These need to be rectified so that they are clear and precise and can be measured.

Finally the best programme learning outcomes are as follows:

Aviation mechanics engineers who have obtained an aeronautics engineering master qualification are (SER page 11):

- able to apply their knowledge and understanding of the design elements of the aircraft; they would use the latest information technology and quality assurance principles and operate in a global engineering market
- able to be informed by the latest aerospace engineering technology, research and development problems, solving methods, aerospace engineering research trends, capable of providing advice in the field.
- able to work independently, to manage the activities of other employees, to present research results and conclusions to the various listeners, to communicate effectively with colleagues and professionals in related fields, to evaluate alternative solutions and possible social and ethical consequences of the activities.

These learning outcomes were reformulated after the last evaluation recommendations in 2013.

The learning outcomes of *Aviation Mechanics Engineering* study programme have been regularly reviewed in 2011, 2012 and recently in 2013 by the Institute Study Programme Committee. A single representative from the social stakeholders was included in the discussion as well as a single student representative. The Expert team learned after meeting with students, alumni and employers that their understanding of meaning, purpose, and importance of learning outcomes is at a very low level. Together with the teaching staff, the students, employers and alumni should be the main actors involved in the creation and improvement of learning outcomes. The Expert team has the feeling that the demand from industry and the market are not directly taken into account in the writing of programme learning outcomes.

However, the Expert team was informed that learning outcomes are discussed after thesis defences, where qualified representatives of stakeholders are present. Thesis defence is a good opportunity but these meetings have to be clearly formalized. Employers and labour market representatives should be associated with this critical and important review.

Study programme aims and intended learning outcomes are published, both in Lithuanian and in English language, on the VGTU website. Some of them are noted in the diploma supplement. They are therefore easily accessible. They are in conformity with legal requirements.

The programme aims and learning outcomes are consistent with the type and level of studies as well as the level of qualification: second cycle Master of Science and level 6 in the European Qualification Framework of the Bologna process.

The name of the programme, its learning outcomes, content and the qualification offered are compatible with each other.

In conclusion, aims and learning outcomes have been improved since the last evaluation and they should now be rewritten in a clearer and more efficient presentation.

## ***2.2. Curriculum design***

The curriculum design meets legal requirements as it has been designed in conformity with description of the general conditions for the Master's Degree Programme. General indicators are:



number of credits (total of 120, 60 per year, 43 for the preparation and defence of the final thesis), study fields and optional courses, lecturers holding scientific degree.

Study subjects are spread evenly with workload of 30 ECTS per semester and their themes are not repetitive. The study courses have been placed in a logical sequence as the process begins with courses of research and innovation and the latest knowledge in aeronautical engineering and finishes with specialized professional modules. A great importance is given to the final thesis with 43 ECTS.

Concerning the content of the subjects and their appropriateness for the achievement of intended learning outcomes, it is mentioned in SER (para.3, page 13) that “The main logical relationships between study modules in *Aviation Mechanics Engineering* study programme are summarised in Annex 6.1 where links between *Aviation Mechanics Engineering* study programme aims, learning outcomes and study modules are provided as well as in study module description cards provided in Annex 1“.

There exists a real problem with the subjects learning outcomes. Each subject is directly related to one of the programme learning outcome. They should have their own individual, short and precise learning outcomes. Thereafter it should be shown how they contribute to the general programme learning outcomes. As is usually the case in most reports from other programmes, a two-dimensional table should show clearly, which learning outcomes are reached by a particular subject/module. For example, it is difficult to see how the “Theory of Elasticity” course is important to meet the so-called Z2 learning outcome (knowledge of tendency in modern aeronautical engineering and aviation mechanics, their problems and possible solutions). However each subject card, presented in Annex 1, proposes individual learning outcomes. They should be grouped together and presented in the main document. Some of them are not at all correctly expressed (e.g. computational aerodynamics), others are very good (e.g. maintenance management), a fact which shows a lack of coherence.

The scope of the programme is sufficient since it offers a wide variety of relevant subjects. The content of the programme would reflect the latest achievements in sciences and technologies in a better way if some social partners from industry were called upon to give lectures or seminars.

Students request more practical works in faculty related to aviation mechanics subjects and social partners are requesting “more focus to practice issue”.

The text on requirements for the final theses is well presented and developed. A Bachelor Degree Awarding commission is formed of 5-7 competent specialists-scientists and practicing professionals and potential employers. They are appointed as reviewers for the Master Graduation Thesis.

In conclusion the curriculum design is correct and may be enhanced if more carefully looked after.

### **2.3. Teaching staff**

Academic staff meets legal requirements. Selection and recruitment are executed according to Law on Sciences and Studies of the Republic of Lithuania. The academic staff member of the *Aviation Mechanics Engineering* study programme comprises 15 teachers: 3 professors, 8 docents, 2 lecturers and 2 assistants for a total of 11 students.

Qualifications of the teaching staff are adequate to ensure learning outcomes. Most of the teachers have written study course books, performed research work in the aeronautical study area and are competent in their field. In the last 5 years, the teachers have prepared 14 course books for students.

The number of teaching staff is adequate to ensure learning outcomes. The student teacher ratio is very high: 11/15, which is very positive. All these statements were verified during the visit. Teaching staff turnover is not great, which is probably due to the restricted number of teachers.

The average age of teachers in the study programme *Aviation Mechanics Engineering* in 2014/15 is 46, which is rather good (62 for professors, 49 for docents, 42 for lecturers, 32 for assistants). Recently, some professors retired and a young teacher, who successfully defended his doctoral thesis in 2014, has started working part-time in the department. They all speak English and some of them would be ready to introduce some lectures (wholly or partially) in English. Every teacher has his/her own office in the Institute.

Teaching staff told the Expert team their workload was 800 contact hours per year, which seems far too large to find enough time to perform research activities. There exist mobility possibilities for teachers. In 2014 there were 6 visits abroad for both research and studies. This was confirmed to the Expert team during the visit.

Members of the teaching staff are involved directly in research related to the study programme. Lists of publications are provided in Annexe 3 dedicated to curriculum vitae. Teachers have participated in scientific research projects financed by Lithuanian Academy of Sciences (LMT), Agency for Science Innovation and Technology (MITA), and other entities. To be noted is the participation of the staff team in an EU financed project concerning pedagogy: “Study programme revision according to EU requirements by improving study quality and using innovative teaching methods”. Teachers participated in scientific conferences in Lithuania and abroad.

The teaching staff mentioned that they have discussions with working students concerning the programme learning outcomes. They also obtained information from the questionnaires filled in by students at the end of semesters. Considering there are only 4 Master students in 2015, an oral discussion would be more appropriate than a written questionnaire. The teaching staff is requesting for new modern equipment (such as 3D printer, Coordinate Measuring Machines and test tools such as NDT). The Expert team met a rather young, motivated and involved team of teachers, which is very positive.

#### ***2.4. Facilities and learning resources***

The premises for studies (auditoriums, classrooms, libraries) are adequate both in size and quality. Antanas Gustaitis Aviation Institute has 14 rooms of various sizes, the total area of which is 722 m<sup>2</sup>. All auditoriums are renovated and equipped with stationary multimedia equipment. The Expert team observed this during the visit of the facilities. It is to be noted that a planned ambitious reconstruction project was presented to the Expert team, but without clear deadlines. Students and employers had not heard anything of this project. For the time being, some of the laboratories are located far apart and students spend a lot of time moving from one to the other.

In the main building there are six rooms dedicated to specialised aviation laboratories: aviation mechanics, avionics, aviation technologies, engineering practice, and engineering training base. The team visited a laboratory dedicated to a flight, and air control simulator. A wind tunnel was reported as accessible to the students at the building energetic and microclimate system laboratory. Students told the Expert team they did not use it. They also mentioned they do not have the possibility to work on real planes.

Computer rooms are well equipped. Proper software facilities are available: XFOIL, AVL, XFLR. Students have a rather good access to facilities: during the semester the library is open from 9:00 to 20:00, reading rooms 9:00 to 21:00; the internet reading room is open during the night from 22:00 to 8:00. AGAI reading room is open from 9:00 to 17:30. There are 8 computerized working places. Laptop computers can access the Internet via Wi-Fi or cable. Both the reading room and the students' dormitories are provided with Internet access.

Students have access to books in the library or via the Internet. Computerized VGTU library operates 24h a day. The library has books and journals in Lithuanian as well as in other languages and the quality of service provided is at a good level.

The general opinion of the evaluation team is that at least at the Master level, students do not have enough practical training at a high level of technicality. Hardware is somewhat out-dated. It is mostly used for explanation and demonstration and not for real practical training.

### ***2.5. Study process and students' performance assessment***

Admission to *Aviation Mechanics Engineering* study programme meets the procedures set by VGTU and follows the rules of the admission commission. Only bachelors of the relevant study branches are accepted for admission. Those with the highest scores have access to the planned number of places.

The number of applicants decreased in 2014 (18; it was around 26 from 2010 to 2013). The number of admitted students is also decreasing. It was confirmed that the number of students graduating is decreasing considerably: among the 9 students admitted in 2012, only 3 graduated in 2014. Some factors help to explain this drop-out rate. Fees are high and employers confirm that the difference in salary between a bachelor and a Master graduated student is low. Active publicity should be started soon with a view to enhancing the motivation of future and new students. This fact is critical and should be looked after seriously in the very next future.

The organization of the study process is adequate for ensuring proper coverage of the programme. The assessment structure is well presented; criteria are clear, accessible and stable. The duration of the study programme is 3200 h. The total time allocated for contact hours (lectures laboratories and practices) is 741 h (23,2 % of the programme scope). These contact

hours are arranged as follows: 375 hours (50,6 %) are allocated to lectures, 44 hours (5,9 %) for laboratory works, 226 hours (30,5 %) for practice and 96 hours (13,0 %) for consultations.

In addition, in each term, an individual study week is included. Finally 76,8 % of the study time is allocated to individual study, which allows students to acquire knowledge, general and individual skills.

Students have the opportunity to participate in basic research and applied research. The aviation Institute organises a Lithuanian young scientists conference called "Aviation Technologies" which is aimed specifically at second cycle students. Papers based on best presentations are published in an online journal "Aviation Technologies".

Students are provided with sport, health and cultural support, at the university level: tourism club, choir, and theatre study, but in fact students do not use those facilities at the Institute level.

Student mobility is possible through an ERASMUS programme. Again, due to the very small number of students per year and the fact that students are working, mobility cannot be developed properly.

The assessment system of students' performance is clear and adequate. The assessment principles are clearly expressed. The assessment of the final thesis is also recorded with precision. But again, students encounter many difficulties in managing their work and time schedules. Furthermore, they told the Expert team they would like to have more practical training: special attention should be paid to this requirement.

Apparently students encounter no difficulty in finding an employment; therefore professional qualifications of the majority of graduates meet provider's expectations.

## ***2.6. Programme management***

The programme management and decision making structure is made up of two committees. Firstly a "Study Committee" is established at the faculty level: its competences include analysis and suggestions to approve newly prepared or improved study programmes and their modules. Secondly a "Programme Committee", is established at department level for the management of study programme preparation, implementation and monitoring.

VGTU is in charge of the internal quality assurance. The implementation supervision is ensured by internal quality audits at least once in five years. It is specified that study programmes are revised every 4 years. They should take into account developments in technologies, changes in the labour market, stakeholders' suggestions, communications and feedback from graduates. However, it is not clear for the Expert team that this is the case. There exists now such a positive trend in job opportunities in this field (employers are asking for more and more graduates) that it is urgent that a task team of managers, teachers, alumni and employers work together on a strong strategy for the programme.

Students are involved in programme evaluation: they are asked to complete a questionnaire to assess study module content. Each teacher may access the results of the questionnaires but students may not and they say they are not seeking to do so. One way or another they should be motivated so as to participate in programme improvements.

It is stated that employers are included in the study programme assessment as members of the study programme committees but a single representative of social stakeholders represents employers. This should be improved in a more systematic way.

It was also stated that outcomes of the previous external evaluation (2012) were used for improvements of the programme. It is clear that improvements were introduced, but they do not seem enough for reaching most of the standards that such a promising formation is intended to meet.

### **III. RECOMMENDATIONS**

1. Changes in the programme aims and learning outcomes are noticeable since the last evaluation. Learning outcomes should be elaborated clearly for each subject and presented in a two-dimensional table showing precisely which learning outcome is attained by a particular module and how it is related to programme outcomes.
2. Teachers should elaborate on the learning outcomes in a well-defined manner with the help of stakeholders. The Institute management staff should organize more formal meetings between the teaching staff and employers.
3. Participation of professionals and alumni should be enhanced in the various aspects of the programme: strategy, lecturing, and learning outcomes.
4. The number of master students should be increased and efforts should be made to attract new students.
5. Although some laboratory equipment is up to standard, other equipment needs to be updated. A large wind tunnel should be fully assessable to students and adapted to aviation experimental needs. Students should have access to real planes.
6. The ratio teachers/students is excellent as the number of students is low. But the teacher contact workload is high and could be decreased to allow teachers to perform more research at international level.

#### **IV. EXAMPLES OF EXCELLENCE (GOOD PRACTICE)**

The *Aviation Mechanics Engineering* study programme is unique in Lithuania. It has a very considerable advantage in the fact that employments are at their highest in this field. Employer's demands for graduates are such that the quality of the programme should somehow be at the same level. Examples of excellence were not observed.

#### **V. SUMMARY**

The *Aviation Mechanics Engineering* Master study programme of the Antanas Gustaitis Aviation Institute (AGAI) of the Vilnius Gediminas Technical University (VGTU) was evaluated on February 3, 2015. The general picture is positive. The visit was well prepared and organized. Meetings and discussions with administrative and academic staff, students, alumni and professional stakeholders were direct and instructive. The Self-evaluation Report provides a fair and complete description of the study programme. The *Aviation Mechanics Engineering* programme is exclusive in the region and the graduate employment rate is excellent.

The previous external evaluation was performed in April 2012. The study programme was accredited for three years until August 2015. The Institute, taking into account the recommendations of the 2012 report, performed an internal self-evaluation assessment in 2013. Since then, improvement is noticeable. Nevertheless, the elaboration of learning outcomes must be adjusted. An effort is still necessary to understand the full relevance of this framework, including participation of stakeholders (professionals, alumni and students).

The Expert team saw a general progression but the following points require careful attention: updating facilities and laboratory equipment, teaching evaluation feedback from students, number of students admitted and engagement of stakeholders. This report contains recommendations to help improving the programme.



## VI. GENERAL ASSESSMENT

The study programme *Aviation Mechanics Engineering* (state code – 621H42001) at Vilnius Gediminas Technical University 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	2
6.	Programme management	2
	<b>Total:</b>	<b>15</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. dr. David Kennedy
Grupės nariai: Team members:	Dr. Rynno Lohmus
	Prof. dr. François Resch
	Prof. dr. Jolanta Janutėnienė
	Dr. Vigantas Kumšlytis
	Mr. Mantas Kinderis

**VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO ANTROSIOS PAKOPOS  
STUDIJŲ PROGRAMOS AVIACIJOS MECHANIKOS INŽINERIJA (VALSTYBINIS  
KODAS – 621H42001) 2015-03-16 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-53-  
12 IŠRAŠAS**

&lt;...&gt;

**VI. APIBENDRINAMASIS ĮVERTINIMAS**

Vilniaus Gedimino technikos universiteto studijų programa *Aviacijos mechanikos inžinerija* (valstybinis kodas – 621H42001) vertinama **teigiamai**.

<b>Eil. Nr.</b>	<b>Vertinimo sritis</b>	<b>Srities įvertinimas, balais*</b>
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	2
6.	Programos vadyba	2
	<b>Iš viso:</b>	<b>15</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)

&lt;...&gt;

**IV. IŠSKIRTINĖS KOKYBĖS PAVYZDŽIAI**

Studijų programa *Aviacijos mechanikos inžinerija* Lietuvoje yra vienintelė. Ji turi didelį pranašumą dėl to, kad šiame sektoriuje yra labai daug darbo vietų. Darbdavio reikalavimai absolventams yra tokie, kad programos kokybės lygis tarsi galėtų išlikti toks, koks yra. Gerosios praktikos pavyzdžių nepastebėta.

**V. SANTRAUKA**

Vilniaus Gedimino technikos universiteto (VGTU) Antano Gustaičio aviacijos institute (AGAI) vykdoma bakalauro studijų programa *Aviacijos mechanikos inžinerija* buvo įvertinta 2015 m. vasario 3 d. Bendras įspūdis pozityvus. Vizitui buvo gerai pasirengta, jis gerai organizuotas. Vyko tiesioginiai ir naudingi susitikimai bei diskusijos su administraciniu ir akademinio personalu, studentais, absolventais ir socialiniais partneriais. Savianalizės suvestinėje pateiktas sąžiningas ir išsamus šios studijų programos aprašas. Studijų programa *Aviacijos mechanikos inžinerija* šiame regione yra vienintelė, jos absolventų įsidarbinamumo lygis labai aukštas.

Ankstesnis išorinis vertinimas atliktas 2012 m. balandžio mėn. Ši studijų programa buvo akredituota trejiems metams – iki 2015 m. rugpjūčio mėn. Atsižvelgdamas į 2012 m. vertinimo išvadų rekomendacijas, Institutas 2013 m. atliko vidinį įsivertinimą.

Nuo to laiko atlikti patobulinimai yra pastebimi, tačiau būtina pakoreguoti numatomus studijų rezultatus. Reikia pasistengti suprasti šios programos aktualumą, įskaitant socialinių dalininkų (sektorius socialinių partnerių, absolventų ir studentų) dalyvavimo svarbą.

Ekspertų grupė mato bendrą pažangą, bet reikia atkreipti dėmesį į šiuos punktus: patalpų ir laboratorinės įrangos atnaujinimas, studentų grįžtamasis ryšys apie dėstymą, priimamų studentų skaičius ir socialinių partnerių dalyvavimas. Šiose vertinimo išvadose pateiktomis rekomendacijomis siekiama pagerinti studijų programą *Aviacijos mechanikos inžinerija*.

<...>

### III. REKOMENDACIJOS

1. Po paskutiniojo vertinimo atlikti šios programos tikslų ir numatomų studijų rezultatų pakeitimai yra pastebimi. Reikėtų aiškiai nustatyti kiekvieno dalyko studijų rezultatus ir pateikti juos dviejų skilčių lentelėje, tiksliai nurodant, kuris studijų rezultatas priskiriamas konkrečiam moduliui ir kaip jis susijęs su programos rezultatais.
2. Dėstytojai, padedami socialinių dalininkų, turėtų labai aiškiai apibrėžti studijų rezultatus. Instituto vadovybė turėtų oficialiau organizuoti dėstytojų ir darbdavių susitikimus.
3. Reikėtų skatinti specialistų ir absolventų dalyvavimą įvairiose šios programos įgyvendinimo srityse: strategijos, dėstymo, numatomų studijų rezultatų.
4. Reikėtų didinti magistrantūros studentų skaičių ir stengtis pritraukti naujų studentų.
5. Nors kai kuri laboratorinė įranga atitinka standartus, likusiąją reikia atnaujinti. Studentams turi būti visiškai prieinamas vėjo tunelis, pritaikytas aviacijos eksperimentams. Studentams turi būti užtikrinta galimybė naudotis tikrais lėktuvais.
6. Dėstytojų ir studentų santykis yra puikus, kadangi studentų nedaug. Bet dėstytojų kontaktinių valandų skaičius yra didelis, ir jį būtų galima sumažinti, kad dėstytojai turėtų daugiau laiko tarptautinio lygmens moksliniam tyrimams atlikti.

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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, parašas)