CENTER FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

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OVERVIEW REPORT FOR STUDY FIELD OF MEASUREMENT ENGINEERING

2022 year of the evaluation

Prepared by the chairperson(s) of the expert panel(s):

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I. INTRODUCTION

The overview is based on the external quality evaluation of the study field of measurement engineering in the following Lithuanian Higher Education Institutions*:* at Vilnius Gediminas Technical University (VGTU), at Kaunas University of Applied Sciences (KAUKO), at Kaunas Forestry and Environmental Engineering University of Applied Sciences (KMAIK) and at Klaipėda State University of Applied Sciences (KVK).
The external evaluations were organised by the Lithuanian Centre for Quality Assessment in Higher Education (SKVC).

Comprehensive external evaluation reports including strengths and weaknesses and concluding with recommendations were prepared -separately for first and second cycle field studies and included evaluation marks. This overview focuses on the main findings of the external evaluation of the measurement engineering field from a general point of view.

Based on the findings of measurement engineering study field evaluation, expert panel have come to a decision to give **positive** evaluation to all four HEIs.

On the basis of external evaluation report of the study field SKVC takes a decision to accredit study field and cycle either for 7 years or for 3 years. If the field evaluation is negative such study field is not accredited.

II. STUDY FIELD OVERVIEW BY EVALUATION AREAS

Overall observations by the expert panel regarding the most positive aspects of the study field in Lithuanian HEIs as well as areas in need of improvement. The analysis covers all 7 evaluation areas.

3.1. Intended and achieved learning outcomes and curriculum

Strengths
- It is possible to personalize study programs for students;
- learning outcomes are systematically verified
- diploma theses are firmly rooted in the reality of the profession for which students are educated.

The implementation of diploma theses takes place in cooperation with external stakeholders
Weaknesses:
- not all the visited universities provided students with places for compulsory apprenticeships resulting from the study programmes;
- poor promotion of the field of study and the fact that the didactic offer is not adjusted to the needs of the labor market are the reasons for the small number of students in the first year of study or the lack of students at all

3.2. Links between science (art) and studies

Strengths

- teachers are very active in acquiring research works that are carried out with the use of modern technologies
- students are involved in the implementation of research work, which has a large impact on their scientific development

Weaknesses

- students should be involved in research work even more often
- the research work carried out should, in addition to the use of modern techniques, also include the implementation of basic tasks in the field of study under assessment

3.3. Student admission and support

Strengths:

- participation of students in the Erasmus programme
- information on the course of studies is easily available to interested persons
- student service at universities is very efficient and meets the expectations of students

Weaknesses:

- not in all universities students benefit from long-term student mobility programmes
- a small number of students in higher years of study may cause their unprofitability

3.4. Teaching and learning, student performance and graduate employment

Strengths:

- universities cooperate with external stakeholders

Weaknesses:

- not all universities have a sufficient number of academic teachers to teach specialty subjects
- there is no formalized cooperation with external stakeholders, e.g. in the form of a business council, which could develop comprehensive proposals for changes in study programs. So far, cooperation has been rather bilateral.

3.5. Teaching staff

Strengths:

- there is a strong personal contact between teaching staff and students and students are very satisfied with the teaching staff.
- universities try to recruit new, young teachers to ensure continuity of education

Weaknesses:

- in some universities there are teachers who teach too many subjects in one field of study, which is evidence of shortages in teaching staff at universities. The deficiencies refer to both basic and specialized subjects
- teachers make little use of EU international exchange programmes.

3.6. Learning facilities and resources

Strengths:

- The facilities and learning resources are adequate in number, size and quality and fully meet the study requirements

Weaknesses:

- there are universities where the needs of disabled students are not fully met

3.7. Study quality management and public information

Strengths:

- in general, universities apply the quality procedures in force in Lithuania. However, it is very good when the university has its own quality book based on existing quality procedures (e.g. KAUKO) or has an ISO certificate (e.g. KVK).

Weaknesses:

- cooperation with external stakeholders affects the quality of studies, therefore it should be closer, as described in point 3.4. of this report.

III. EXAMPLES OF EXCELLENCE

Having a certificate ISO (LST EN ISO 9001:2015) forces universities to assess the quality of studies more often than visits by a team of experts. This has a very positive effect on the quality of studies at the University. Very good example is Klaipėda State University of Applied Sciences

IV. RECOMMENDATIONS

MAIN STRATEGIC RECOMMENDATIONS FOR THE IMPROVEMENT IN STUDY FIELD OF MEASUREMENT ENGINEERING

- **Strategic recommendations for the Higher Education Institutions (at institutional level): Strategic recommendations for the Ministry of Education and Science and Sport (at national level):**

- Introduction of the obligation to obtain the ISO certificate (LST EN ISO 9001:2015) in all universities

- Create opportunities to increase the employment of academic teachers for the implementation of specialist subjects

- create conditions for strong promotion of technical faculties in order to increase the number of students in the first and subsequent years of study

- create conditions for even wider use by students and teachers of EU mobility programs (e.g. ERASMUS+)