

Decision Regarding Assessment of the Computer Science and Information Technology Study Programme Group at the Level of Doctoral Studies Tallinn University

20/06/2018

The Quality Assessment Council for Higher Education at the Estonian Quality Agency for Higher and Vocational Education decided to approve the report by the Assessment Committee and to conduct the next quality assessment of the Computer Science and Information Technology study programme group at the level of Doctoral studies at the Tallinn University in seven years

On the basis of subsection 10 (4) of the Universities Act and point 40.1 of the 'Quality Assessment of Study Programme Groups at the Level of Doctoral Studies', authorised in points 3.7.3 and 3.7.1 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education (hereinafter referred to as 'EKKA'), the EKKA Quality Assessment Council for Higher Education (hereinafter referred to as 'the Council') affirms the following:

1. On 19.04.2017 Tallinn University and EKKA agreed upon a time frame to conduct a quality assessment of the study programme group.
2. The Director of EKKA, by her order on 12.02.2018, approved the following composition of the quality assessment committee for the Computer Science and Information Technology and Mathematics and Statistics study programme group at the level of doctoral studies at the Tallinn University of Technology, Tallinn University and University of Tartu (hereinafter referred to as 'the Committee'):

Ernst W. Mayr (chair)	Professor Emeritus, Department of Informatics, TUM, Munich (Germany)
Juha Kalevi Kinnunen	Professor, Head of the Department, Mathematics, Aalto University (Finland)
Dick H.J. Epema	Professor of Computer Science, Delft University of Technology (Holland)
Sasu Tarkoma	Professor, Head of Department, Department of Computer Science, University of Helsinki (Finland)
Tõnu Pekk	<i>Tuleva Tulendusühistu</i> , member of the board, head of the

	Task Force on Funding Research and Higher Education 2016–2017 (Estonia)
Josip Maric	Doctoral student, University Of Montpellier (France)

- Tallinn University submitted the following doctoral programme for evaluation under the Computer Science and Information Technology study programme group:

Information Society Technologies

- Tallinn University submitted a self-evaluation report to the EKKA Bureau on 12.12.2017, and the assessment coordinator forwarded it to the Committee on 18.01.2018.
- An assessment visit to Tallinn University took place on 15.03.2018.
- The Committee sent its draft assessment report to the EKKA Bureau on 29.04.2018, and EKKA forwarded it to Tallinn University for its comments on 7.05.2018 and the University delivered its response on 18.05.2018.
- The Committee submitted its final assessment report to the EKKA Bureau on 25.05.2018. The assessment report is an integral part of the decision. The report is available on the EKKA website.
- The Secretary of the Council forwarded the Committee’s final assessment report along with the University’s self-evaluation report to the Council members on 6.06.2018.
- The Council with 10 members present discussed these received documents in its session on 20.06.2018 and, based on the assessment report, decided to point out the following strengths, areas for improvement, and recommendations regarding the Computer Science and Information Technology study programme group at the level of doctoral studies at the Tallinn University.

The Committee pointed out the following observations and recommendations for the Computer Science and Information Technology study programme groups at the Tallinn University of Technology, Tallinn University and University of Tartu, and for the Mathematics and Statistics study programme group at the University of Tartu:

- The Committee is under the impression that a doctoral degree in IT is not much valued in Estonia, and thus, it is challenging to enrol the best talents to those study programmes. Universities should make more joint efforts to promote the benefits arising from doctoral programmes to the general public, and give concrete examples.
- It is advisable that universities focus even more on internationalisation by increasing the two-directional mobility of students and teaching staff and benchmarking their performance targets against foreign universities.
- Although skills-based, as well as theoretical subjects, deserve their place in the study programme, it is advisable to reduce the proportion of subject courses somewhat and redesign teaching and learning to meet individual needs better. Year-long subject courses will only be justified if otherwise promising doctoral students have no prior knowledge necessary to start research work.
- It is advisable to bear in mind the industry’s rapid development, advancing the connections with enterprises and putting more focus on applied research.
- Advanced subject courses should be offered in such subjects as machine learning and data analysis to ensure scientific developments in IT and data statistics.

- 6) Keeping in mind that the Universities have adequate supervising capacity, it is advisable to increase the number of doctoral students.
- 7) In order to promote industrial doctorate programmes, it is also advisable to initiate the creation of a tax exemption model for employers who recruit doctoral students.

Strengths, areas for improvement and recommendations regarding the Information Society Technologies study programme

Strengths

- 1) Supervision of learning and research is of good quality. Doctoral students and faculty are satisfied and enthusiastic.
- 2) State-of-the-art facilities are used, and the School of Digital Technologies has the most modern equipment.
- 3) A “preschool” for PhD applicants launched in 2016 provides potential Doctoral students advice and feedback, making sure the research plans comply with the University fields of research and projects.
- 4) A positive development is that most doctoral students now have two supervisors, as was recommended after the 2014 re-evaluation of the study programme group.
- 5) Two straightforward research fields give the research themes in the doctoral programme a clear direction.
- 6) The studies are flexible and comprehensive, which supports the individual progress of doctoral students and takes their diversity into account.
- 7) The study programme offers a unique combination of information, society and technology-related competencies.
- 8) Many very experienced supervisors are involved in the study programme, and informal organisation of work is used, e.g. co-supervision, using junior teaching staff as counsellors, sharing best practices. Doctoral students were very satisfied with cooperation, communication and support they receive.
- 9) The learning environment supports international doctoral students. Measures have been taken at the University level to achieve gender balance.

Areas for improvement and recommendations

- 1) Duration of study is relevantly long in international comparison. It is advisable to make continued efforts to integrate doctoral students into research teams.
- 2) Funding of study programme has to become sustainable to keep the quality as well as the motivation of doctoral students and teaching staff.
- 3) The mechanisms and practices associated with ensuring the quality of supervision shall be documented and implemented systematically.
- 4) Teaching and research related mobility of teaching staff should be advanced, e.g. allowing them to dedicate a semester for research only.
- 5) Clear career models shall be created, and doctoral students would have to be informed about these at the early stages of studies.
- 6) PhD applicants from abroad should be informed about teaching opportunities at the University.

- 7) The rules and procedures for defending doctoral theses should be explained more clearly.
 - 8) It is advisable to work more closely together (including have joint doctoral projects) with various enterprises who employ doctoral students.
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10. Point 40 of the 'Quality Assessment of Study Programme Groups at the Level of Doctoral Studies' establishes that the Quality Assessment Council shall approve an assessment report within three months after receipt of the report. The Council shall weigh the strengths, areas for improvement, and recommendations outlined in the assessment report, and decide whether to conduct the next quality assessment of that study programme group in seven, five or three years.
 11. The Council weighed the strengths, areas for improvement, and recommendations presented in point 9 of this document and found that the study programme, the teaching conducted under these programmes, and development activities regarding teaching and learning conform to the requirements, and

DECIDED

to approve the assessment report and to conduct the next quality assessment of the Computer Science and Information Technology study programme group at the level of doctoral studies at Tallinn University in seven years.

The decision was adopted by ten votes in favour and 0 against.

12. The Council proposes that the Tallinn University submit an action plan to EKKA concerning the areas for improvement and recommendations pointed out in the report no later than 20.06.2019.
13. A person who finds that his or her rights have been violated or his or her freedoms restricted by this decision may file a challenge with the EKKA Quality Assessment Council within 30 days after the person filing the challenge became or should have become aware of the contested finding.

The Council shall forward the challenge to its Appeals Committee who shall provide an unbiased opinion in writing regarding the validity of the challenge to the Council, within five days after receipt of the challenge. The Council shall resolve the challenge within ten days of its receipt, taking into account the reasoned opinion of the Appeals Committee. If the challenge needs to be investigated further, the deadline for its review by the Council may be extended by a maximum of thirty days.

A legal challenge to this decision is possible within 30 days after its delivery, by filing an action with the Tallinn courthouse of the Tallinn Administrative Court under the procedure provided for in the Code of Administrative Court Procedure.

Eve Eisenschmidt
Chair of the Council

Hillar Bauman
Secretary of the Council