TRANSPORT AND TELECOMMUNICATION INSTITUTE REGULATIONS FOR THE AWARD OF THE DEGREE OF DOCTOR OF SCIENCE (DOCTORAL DISSERTATION) PROCEDURE AND CRITERIA

1. General condition

The Regulations determine the procedure for awarding the degree of Doctor of Science (hereinafter - doctoral degree) at the Transport and Telecommunication Institute (hereinafter - TSI), as well as the criteria according to which a person's academic activity is equated with the requirements of an accredited doctoral study programme (hereinafter - programme), if the degree of Doctor of Science (hereinafter - degree) is applied for by persons who have not studied in the relevant programme.

2. Doctoral thesis

The degree is awarded for a doctoral thesis independently developed and publicly defended under the supervision of an experienced researcher (hereinafter - the thesis supervisor), which contains the results of original scientific research and provides new insights into the relevant field or subfield of science. When applying for a second degree in another field of science, the thesis can also be prepared without a thesis supervisor, with the advice of leading specialists in the field (hereinafter - the advisor). The main results of the thesis must be published in scientific journals.

- 2.1. Doctoral (PhD) thesis can be:
 - 2.1.1. dissertation;
 - 2.1.2. a thematically coherent set of scientific publications. Publications must have been published or accepted for publication in scientific journals that are anonymously peer-reviewed, internationally available in repositories of scientific information and cited in internationally accessible databases;
 - 2.1.3. monograph a peer-reviewed scientific book on a single topic, internationally available in scientific information repositories, with a bibliography and an abstract in a foreign language.
- 2.2. The requirements for the scope, structure and presentation of the thesis shall be determined by the relevant programme.

3. Promotion council

3.1. The structure of the Promotion council in the field of science, in which the TSI has been delegated the right of promotion is approved by the Rector's order. The Councils shall consist of at least five scientists who have the right of expert of the Latvian Council of Science in the field of science, two of them - in the sub-field of science in which the doctoral thesis is defended. Foreign scientists may be included in the Council if the consent of the State Scientific Qualification Commission (hereinafter - the Commission) has been

received. The Council's term of office is determined by the expiry of its members' LCS expert status. The Council shall operate in accordance with these Regulations. (In the wording of Decision, No 01-7/2 of the TSI Senate of 20.10.2020)

- 3.2. The Council takes all decisions by open voting, with a simple majority of votes present. If the votes are equally divided, the vote of the chairman of the council is decisive. (In the wording of Decision, No 01-7/2 of the TSI Senate of 20.10.2020)
- The Council's work is provided by TSI. The costs of the doctoral dissertation process are covered by the higher education institution implementing the doctoral programme from the funds intended for the programme. If the author of the doctoral thesis (hereinafter referred to as the applicant) has not completed an appropriate programme or has completed it more than two full calendar years without obtaining a degree, the decision on the funds to cover the costs of the doctoral process shall be taken by the higher education institution.

4. Submission of the doctoral thesis

- 4.1. For the award of a degree, the applicant shall submit the following documents to the Rector of the TSI:
 - 4.1.1. an application with a supporting endorsement from the thesis supervisor or advisor:
 - 4.1.2. doctoral thesis;
 - 4.1.3. summary of the promotion work in Latvian;
 - 4.1.4. certificate from the university about the completion of the program or the passing of exams in the chosen sector, sub-sector and foreign language;
 - 4.1.5. Curriculum Vitae;
 - 4.1.6. a list of scientific publications reflecting the results of the doctoral thesis and copies thereof;
 - an extract from the minutes of the meeting of the university or other unit of the 4.1.7. scientific institution (where the doctoral thesis was prepared), certifying the discussion of the doctoral thesis, its scientific novelty and the personal contribution of the applicant.
- 4.2. If the doctoral thesis is a thematically unified set of publications in which the applicant has co-authors, or a collective monograph, it shall be accompanied by the written consent of the co-authors of all publications included in the doctoral thesis to the use of the publication in the thesis or by a statement of the corresponding (main) author of these publications on the applicant's personal contribution to the preparation of the publications.
- 4.3. Within a week, the chairman of the TSI Promotion Council evaluates the formal compliance of the documents with the requirements of these regulations and if the applicant:
 - 4.3.1. has completed an appropriate programme, submits the work for consideration by the council:
 - 4.3.2. has not completed the appropriate programme, the thesis shall be referred to the council of the department implementing the relevant programme or to the Research and Doctoral Council, which shall align the applicant's academic activities with the requirements of the programme.
 - (In the wording of Decision, No 01-7/2 of the TSI Senate of 20.10.2020)
- 4.4. If deficiencies are found in the documents, the TSI Promotion Council shall request the applicant in writing to submit the missing or non-compliant documents. The applicant shall submit the requested documents within two weeks. If the documents submitted do not comply with the requirements of these Regulations, the higher education institution shall return the documents to the applicant, indicating the deficiencies found. In this case, the applicant has the right to resubmit the documents again no earlier than after three months.

5. Alignment of the applicant's academic activities the requirements of the doctoral study programme

- 5.1. The council of the higher education institution unit or the Research and Doctoral council decides within a month from the date of submission of the documents on the equalization of the academic activity of an applicant who has not studied the appropriate program. The following criteria shall be taken into account in the decision:
 - 5.1.1. independently conducted thematically unified research that provides new scientific insights and on which scientific articles have been published or accepted for publication in the relevant scientific discipline or sub-discipline;
 - 5.1.2. successful completion of the doctoral examinations required by the programme;
 - 5.1.3. the scientific results of the doctoral thesis have been presented in at least one international seminar and conference in the relevant scientific field or sub-field;
 - 5.1.4. the applicant has supervised at least one student's course work, qualification work, thesis (diploma project), bachelor's thesis or master's thesis, or has lectured at least one credit at a higher education institution, or has supervised at least three student internships;
 - 5.1.5. the applicant has led a team in a specific section of a scientific project, participated in the organisation of at least one international seminar or conference or carried out research in collaboration with foreign scientific institutions, other Latvian scientific institutions or companies.
- 5.2. If the decision to align the academic activity with the requirements of the programme is taken, the TSI shall notify the applicant of the decision within one week of its adoption and forward the documents to the Promotion council for further consideration. If the decision is not to align the academic activity with the programme requirements, the higher education institution shall state the reasons for the decision and return the documents to the applicant.
- 5.3. The applicant has the right to remedy the deficiencies and resubmit the documents, but not earlier than three months after the higher education institution's decision.

6. Evaluation of the doctoral thesis

- 6.1. Within one month after the receipt of the doctoral thesis, the Promotion council shall decide on its acceptance for public defence. The thesis shall be accepted for public defence if it fulfils the following criteria:
 - 6.1.1. the author of the doctoral thesis has justified the choice of the topic, defined the aim and objectives of the research, described the scientific achievements in the study of the topic and the methods used, presented and discussed the results and findings, summarising them in the conclusions and theses to be put forward for defence;
 - 6.1.2. the doctoral thesis is completed original research, the results of which are of fundamental importance in the relevant subfield of science;
 - 6.1.3. the scope of the scientific work is sufficient in accordance with the requirements laid down in the Regulations of the council;
 - 6.1.4. the work uses modern methods of analysis and data processing;
 - 6.1.5. the results of the work have been published in a scientific journal or monograph, or the related intellectual property has been patented;
 - 6.1.6. the results of the work have been presented at international scientific conferences or seminars;
 - 6.1.7. the work is not falsified or plagiarised, or there has been no other breach of

scientific ethics.

- 6.2. When accepting work for defense, the council:
 - 6.2.1. appoint three reviewers, one of whom shall be an expert of this Council in the relevant scientific subfield, and two of whom shall be experts in the subfield from other scientific institutions or organisations (preferably from outside Latvia);
 - 6.2.2. defines the foreign language and timeframe for the translation of the abstract of the doctoral thesis to ensure its international accessibility and discussion;
 - 6.2.3. inform the applicant in writing of the composition of the council and the reviewers;
 - 6.2.4. set the time of the dissertation meeting not earlier than three months and not later than six months after the receipt of the dissertation;
 - 6.2.5. at least two weeks before the defence of the doctoral thesis, announce it in the official publication "Latvijas Vēstnesis" and "Zinātnes Vēstnesis". Together with the announcement in the official publication "Latvijas Vēstnesis", the TSI shall ensure public availability of the doctoral thesis on the Internet and in the library of the higher education institution;
 - 6.2.6. send the thesis and related documents to the Committee within one week.
- 6.3. If the doctoral thesis contains information classified under the State Secrets Act, only the abstract of the thesis shall be posted online and in the highre education institution's library. In this case, the council shall decide on the defence of the doctoral thesis in a closed session attended only by the members of the council, the reviewers, the applicant, the supervisor of the doctoral thesis and other persons who have been granted access to classified information in accordance with the procedure established by law. The defence in closed session is indicated in the information published in the official publications "Latvijas Vēstnesis" and "Zinātnes Vēstnesis".
- 6.4. The applicant's relatives, direct subordinates or supervisors in the workplace, co-authors of the applicant's publications, the thesis supervisor and advisor, as well as the staff of the laboratory, department or group in which the thesis was developed, may not be invited as reviewers of the thesis.
- 6.5. The applicant has the right to submit justified objections to the structure of the council or the reviewers at the higher education institution within one month after receiving the information mentioned in subsection 6.2.3 of these regulations. In this case, TSI may change the structure of the council or instruct the council to invite other reviewers of the doctoral thesis within one month. If the applicant has objections to the reconstituted board or to the external reviewers, he/she may withdraw his/her application for the defence of the doctoral thesis.
- 6.6. If the council does not accept the thesis for public defence, it shall notify the applicant in writing of its decision, indicating which of the requirements referred to in Paragraph 6 of these Regulations have not been fulfilled. The applicant shall have the right to resubmit the thesis for defence to the higher education institution no earlier than after one year.
- 6.7. The commission shall, within one month of receipt of the documents referred to in Subparagraph 6.2.6 of this Regulation, prepare an opinion. If the commission finds that the thesis does not comply with generally accepted international standards in the field in terms of content and methodology, the dissertation process is terminated. This decision shall be notified in writing to the council concerned no later than four weeks before the public defence of the thesis, indicating which requirements have been infringed. In such a case, the council shall notify the applicant in writing of the council's decision within one week and inform the applicant of its next steps.
- 6.8. The reviewers evaluate the theoretical novelty and practical application perspectives of the dissertation results, compliance with the level of international achievements in the relevant scientific field, compliance of the analysis and data processing methods used by the

- applicant with the aims and objectives of the dissertation, as well as compliance of the conclusions and findings of the applicant with the results.
- 6.9. The reviewers have the right to request in writing additional information about the thesis from the applicant.
- 6.10. The reviewers shall submit to the council a written review of the doctoral thesis, indicating the compliance of the thesis with the requirements for the award of the degree in the specific field and subfield of science. The council shall present the reviews to the candidate no later than three working days before the dissertation meeting.
- 6.11. If one reviewer's feedback is negative, the dissertation may proceed, but the applicant is entitled to withdraw the dissertation and complete or revise it.
- 6.12. If two or three reviewers' feedback is negative, the thesis will not be considered at the meeting of the council and will be returned to the applicant for revision. The applicant may resubmit the revised thesis to the higher education institution no earlier than six months after receiving the negative reviews.
- 6.13. The council shall submit a notice of the withdrawal of the doctoral thesis for publication in the official publication "Latvijas Vēstnesis" and "Zinātnes Vēstnesis" within one week after the receipt of the withdrawal.

7. Public defence of the doctoral thesis and award of the degree

- 7.1. The meeting of the council deciding on the promotion shall be open to the public, except in the case referred to in paragraph 6.3 of these regulations. All interested parties may attend the meeting, ask questions to the applicant, the council, and reviewers, as well as comment on the doctoral thesis.
- 7.2. The reviewers of the doctoral thesis shall have the right to vote at the meeting of the Council at which the thesis is being dissertated. A meeting of the Board shall be quorate if at least half of the voting experts of the council and at least two reviewers are present. The dissertation meeting may be held by online videoconference (real-time transmission of images and sound) if the applicant, a member of the Board or the thesis reviewer is in another location and cannot attend the dissertation meeting.

 (In the wording of Decision, No 01-7/2 of the TSI Senate of 20.10.2020)

7.3. Doctoral dissertation meeting:

- 7.3.1. the secretary of the council reports on the documents submitted by the applicant, any decisions that have been taken on the dissertation and presents the applicant's curriculum vitae to those present;
- 7.3.2. those present have the right to ask questions about the information provided by the secretary of the council;
- 7.3.3. the applicant reports on the doctoral thesis and answers the questions from the audience about the content and results of the doctoral thesis;
- 7.3.4. the council listens and discusses the reviewers' feedback as well as the applicant's academic discussion with the reviewers;
- 7.3.5. the council listens the doctoral thesis supervisor's (advisor's) feedback on the applicant's academic performance.
- 7.4. The decision to grant or refuse to award the degree Doctor of Science (Ph.D.) shall be taken by the council by a simple majority of votes by open voting. If the votes are equally divided, the council holds a discussion and votes again. If, after repeated voting, the votes are equally divided, the council will review the doctoral thesis again, but no earlier than one month and no later than six months after the dissertation meeting, in which the decision was not made. Until the next meeting of the council, the applicant has the right to make corrections to the doctoral thesis in agreement with the chairman of the council. The council shall inform the applicant, the higher education institution and the commission in writing of

its decision within one week. (In the wording of Decision, No 01-7/2 of the TSI Senate of 20.10.2020)

- 7.5. The commission shall have the right to request in writing from the council, within one month of the decision referred to in Paragraph 7.4 of this Regulation, any documents related to the specific dissertation and to challenge the council's decision if the doctoral thesis fails to comply with the requirements for the award of the degree or if the dissertation procedure has not been followed.
- 7.6. If the commission disputes the decision of the council referred to in Paragraph 7.4 of this Regulation, the higher education institution shall not be entitled to issue the degree diploma to the applicant until the dispute has been resolved in accordance with the procedure set out in Chapter VIII of Regulation No.1001 of the Cabinet of Ministers of the Republic of Latvia.
- 7.7. If the commission's objections regarding the compliance of the doctoral thesis with the requirements for awarding the degree, mentioned in paragraphs 6.7 or 7.5 of these regulations, are recognized as justified, the council returns the doctoral thesis to the applicant for revision. The applicant may resubmit the doctoral thesis after eliminating the indicated deficiencies, but no earlier than one year after receiving the objections of the commission referred to in these Regulations or in Section 7.5. If a formal breach of the dissertation procedure is detected, the council shall organise the dissertation meeting again within two months.
- 7.8. If the commission has challenged the council's decision on awarding the degree and the objections of the commission mentioned in the article of these regulations regarding the compliance of the doctoral thesis with the requirements for awarding the degree are recognized as justified, the higher education institution shall remove the chairman of the council and appoint another member of the council as the chairman of the council.
- 7.9. The award of the degree shall be issued by the TSI no earlier than six weeks and no later than six months after the council's decision to award the degree, provided that this decision is not contested.

8. Challenging and appealing decisions

- 8.1. Decisions and actions taken by a higher education institution, council or commission may be challenged in the Latvian Council of Science within a month.
- 8.2. The decision of the Latvian Council of Science may be appealed against in court in accordance with the procedure established by the Administrative Procedure Law.

The given regulation is approved, amended and cancelled by the TSI Senate.