

## **GUIDELINES FOR DOCTORAL THESIS OPPONENTS**

A doctoral thesis in Tallinn University of Technology (TalTech) is an independent research paper that presents a novel solution to a significant problem in the research area of the respective doctoral curriculum and demonstrates the candidate's ability to conduct independent research.

A doctoral thesis is a dissertation, a summary of published papers or an independent monograph.

As a rule, a doctoral thesis is based on at least three peer-reviewed research papers (published or accepted for publication).

### Preparations for the defense

A doctoral student, who wishes to defend the thesis, will submit the thesis to the head of the department where the research was carried out. The head of the department will appoint a pre-reviewer of the thesis, who is, as a rule, an employee of the university or cooperation partner, familiar with the field of the thesis. The pre-reviewer's task is to determine whether the thesis comply with the requirements for doctoral thesis. Pre-reviewer issues a statement for the purpose of granting the permission to publish and defend the thesis. After pre-review, doctoral student will submit the thesis, supervisor's opinion and pre-reviewer's statement to the dean of the School of Science. Within two months, the dean refers the doctoral thesis to School's Council for discussion and based on council's opinion decides whether to permit the thesis for defense or not.

At least one and a half month before the defense the dean appoints two opponents, defense committee and sets the time and place for the defense. Usually the opponents are part of the defense committee.

According to the regulations of TalTech the opponents should be the recognized specialists in their fields of research, should come from outside TalTech, and at least one of them from outside the Republic of Estonia. The opponents should not have conflict of interest with the doctoral candidate, including personal and economic interests, as well as joint publications with the doctoral student or his/her supervisor published in last five years.

The thesis will be published online at least one month prior the defense date.

The opponents are requested to send their written opinions to the chairman of the defense committee at least one week before the defense. The opponent's written report may be freely formulated. It should include a clearly reasoned assessment of the scientific value of the dissertation.

### Defense procedure

The role of the defense committee is to make a decision about awarding the PhD degree to the candidate.

A doctoral thesis is usually defended at a public meeting of the defense committee. If necessary, a closed meeting will be announced by the chairman of the defense committee pursuant to the dean's decision.

The language of the defense is the language in which the thesis is written. Usually the language of the defense is English.

The Chairman of the defense committee leads the defense procedure. The chairman introduces the candidate, the opponents, the defense committee and the supervisors and presents the agenda of the defense.

The defense procedure includes:

- introduction of the documents submitted for defense;
  - presentation by the degree candidate – 20 to 30 min.,
    - an academic discussion between the degree candidate and the opponents - up to 2 hours;
- It is up to opponents to decide in which order they want to examine the candidate: one by one, or intermittently. The opponents are free to select any aspect of the thesis they consider relevant for discussion. The candidate will respond to the comments and questions, defending his/her choices, conclusions and results.
- answering questions of the members of the defense committee;
    - a general discussion (all those present may ask questions and give their opinions, introduction of opinions presented in writing);
  - hearing the supervisor's opinion;
  - making a decision and drawing up a defense record.

Immediately after defense, the defense committee will decide in a closed meeting by secret ballot, whether to award a doctoral degree to the candidate. A doctoral degree is awarded if more than 50% of the members of the defense committee who participated in the meeting vote in favor. No grades are given.

#### Role of the opponents

The role of the opponents is to scrutinize the candidate's scientific work to assess whether he/she meets the quality criteria of the PhD degree, including the importance of the research subject, relevance of the formulation of scientific questions and hypotheses, how familiar is the doctoral student with the scientific literature of the subject field, are the research materials and methods relevant and justified, what is the quality, novelty and reliability of the research results, are the relevant issues critically discussed, the significance of conclusions, and general composition and logical organization of the thesis as a whole. The examination should also reveal candidate's ability of independent scientific thinking and scientific maturity, including the ability to plan and implement the research independently.

As most of the publications in School on Science are joint publications, it is also important to assess the candidate's personal contribution in the study.

The communication prior the defense between candidate and opponent is not regulated as long as it assures unbiased judgement of opponents. If there is a need for the additional analysis, or checking facts some questions could be submitted in their written reports.

#### General information

The dress code of the defense is business formal.

Opponents travel and living expenses are covered by university.

Further questions about facilities in the lecture hall or about the procedure should be addressed to the chairman of the defense committee or the supervisor.