



Freiberg, 14 December 2021

## Information sheet for preparing a publications-based dissertation in Faculty 4

The dissertation is a scientific work written by the doctoral candidate in the scientific field in which the doctorate is sought. In addition to the classic monograph, the Faculty of Mechanical, Process and Energy Engineering at the TU Bergakademie Freiberg provides the option of a publications-based dissertation. The basic procedure for gaining a doctorate (structured doctoral training where appropriate, evaluation of the dissertation by reviewers appointed by the Faculty Council and oral defence of the dissertation) is not influenced by the chosen form of dissertation.

In accordance with doctoral regulations, however, the publication of the results of the dissertation prior to the start of the doctoral procedure requires the consent of the supervisor.

The elements of the procedure that particularly ensure the quality of the doctorate in the case of the publications-based dissertation are listed below.

1. The publications-based dissertation is an independent scientific work that can be written either as a monograph (based on individual publications) or as a compilation of the individual publications. In the second variant, in addition to the individual articles, there must be an independently written, comprehensive explanation and presentation of the scientific context/research topic. This explanation is intended to serve as a supporting framework and contains further explanations over and above those in the publications. In this capacity, it should also emphasise the content-related connection (the “red thread”) between the individual publications. As a result, the individual publications can be viewed as a scientific work. We recommend using sections such as the introduction, connecting passages, a methods section and a detailed description of the data on which the publications are based to connect the individual publications. The length of the explanation and presentation should be no less than 30 pages and no more than 60 pages.

2. A minimum of three and a maximum of six high-quality publications should form the basis of the dissertation. A publication is deemed to be of high quality if it has been published in a specialist journal with scientific quality assurance that is relevant to the scientific field in which the doctorate is sought. Publications that the doctoral candidate has already submitted to the specialist journal for publication before completing his/her first degree or master's degree cannot be taken into account (see admission requirements for a doctorate in the doctoral regulations). In principle, parts of a joint publication can also be used by the respective authors for their separate dissertations. A maximum of 2/3 of the underlying publications may be used for multiple dissertations. The doctoral candidate must be the main author (first author or author with a share of > 50%) for at least one publication.
3. Only one of the reviewers appointed by the Faculty Council may also be the co-author of the publications relevant to the dissertation.
4. If the publications on which the dissertation is based were not written by the doctoral candidate as an individual author, the doctoral candidate's academic contribution must be clearly and appropriately marked and the extent of his/her actual contribution determined. For each publication, a declaration to this effect, which should be confirmed by all co-authors, must be enclosed with the application to initiate the doctoral procedure. This declaration should also contain consent for the publication to be used in the dissertation (see Appendix 1).
5. The sum of the doctoral candidate's own contributions to the publications on which the dissertation is based should be at least 240%.
6. As part of initiating the doctoral procedure, the Faculty Council uses the submitted declarations to check whether the stated requirements for a publications-based dissertation are being met.

Issued on the basis of the resolutions of the Faculty Council of 12 January 2016; 12 June 2018; 14 December 2021.

Freiberg, 21 December 2021

Signed  
Prof. Dr.-Ing. Tobias Fieback  
Dean

## Confirmation that the publication may be used for the dissertation by

Mr/Ms Title First name Surname

Publication:

(Title, \_\_\_\_\_

Indication of source \_\_\_\_\_

This publication is to be used in a publications-based dissertation. The contributions by the individual authors of this publication are as listed in the table below.

Author	Contribution in detail	Extent of contribution [%]
Title, first name, surname	e.g. concept, experimental set-up, measurements, measurement analysis, simulations, discussion of the scientific content, specialist supervision	

- The above publication does not form part of another dissertation.
- The above publication is part of another dissertation or is intended as such.

Name of co-author(s):

Provisional title of dissertation:

I hereby confirm that the stated extent of the scientific contributions is correct and I declare my consent for the publication to be used in a publications-based dissertation.

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Date, place, first name, surname

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Signature of  
doctoral  
candidate

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