# FME Instructions for doctoral thesis preparation and formatting

# 1. General (formal) part of the doctoral thesis

Regardless of type and content, each doctoral thesis shall include the following formal components in the order provided below (students shall use the 'Template for doctoral theses at the FME', in which they shall replace the red sample text with the appropriate data for their thesis using black text:

- 1. The title page shall be formatted as presented in the example (the first page of the Template for doctoral theses at the FME) and students shall enter the required data: thesis title, name and surname, month and year of doctoral thesis defence. The spine, which is seen when the thesis is put on a shelf, must include (see Appendix): code and sequence number given in the decision to confirm the doctoral thesis, and author's surname and name. In accordance with the Template for doctoral theses at the FME, the title page should be followed by:
- 2. An empty sheet.
- 3. A repeated title page, this one including mentor (and co-mentor if confirmed by the UL) information with full titles.
- 4. A further copy of the **signed doctoral thesis topic** (the original signed doctoral thesis topic can be bound in your final copy of the thesis).
- 5. Acknowledgment and/or inscription (optional). Write an acknowledgment to those who have helped you with your thesis and without whom the thesis wouldn't be as it is. Usually, your mentor, co-mentor and, if relevant, institutions that have financially or otherwise supported the preparation of your doctoral thesis shall be acknowledged first, followed by assistants, other co-workers and colleagues who helped with the theoretical and experimental part; finally, we usually thank our families.
- 6. The Abstract: Students shall provide the necessary data on one A4 page as follows:
  - UDK number to the right: gained by sending a request via email to **knjiznica@fs.uni-lj.si** (library of the Faculty of Mechanical Engineering) at least three working days before submission of the spiral bound copy of your thesis; the UDK number is based on key words and the abstract, e.g. 123.45:678.91:234.56(789.1);
  - doctoral thesis number to the right: found on student's signed doctoral thesis topic document or at the Student Affairs Office, e.g. DR III/99;
  - doctoral thesis title;
  - student name and surname;
  - key words: usually 5 to 10 key words written **in the lower case** and in plural form where reasonable; and
  - the Abstract: 100 to 200 word condensed presentation of thesis content without explanation or critical opinion.
- 7. **The Abstract in English:** The same as under point 9, yet on a new page; technical expressions should be translated by means of the latest literature in the discussed field, e.g. expert articles.
- 8. Structured **Table of Content** indicating page numbers of individual chapters and subchapters.
- 9. **Table of Figures** indicating page numbers of individual figures.
- 10. **Table of Tables** indicating page numbers of individual tables.
- 11. **List of symbols** with accurate, clear explanations and unit indication, followed by Greek symbols and indices in alphabetical order. The basic and derived units of measurement must be marked in accordance with the international measurement system (SI). Symbols are usually

- written in italics. If a section includes many equations and derivations with, for example, vector quantities or average quantity values, you can write this in table footer, such as Note: Boldface letters denote vector quantities.
- 12. **List of abbreviations** in alphabetical order with clearly presented meanings. When deciding on abbreviations, choose the one most commonly used in text books, expert articles and the like. In the case of abbreviations that stand for foreign expression initials, write the original foreign expression in italics next to the translation.

#### 2. Doctoral thesis content

Regardless of thesis type, research or development, the content of the final paper shall be divided in meaningful chapters as follows:

- 14. **Introduction**: The introductory chapter should contain at least one introductory paragraph about the discussed topic, followed by a presentation of the starting points for the thesis, its purpose and meaning, and the objectives that need to be achieved.
- 15. **Theoretical basis and state of development overview:** Regardless of whether the paper is theoretically- or experimentally-oriented, the theoretical basis of the discussed topic must be discussed first.
- 16. **Purpose and objectives of doctoral thesis**: Summarize and present the discussed issue, research hypothesis and concrete objectives of the doctoral thesis, as well as the structure of the thesis.
- 17. **Research methodology**: This chapter should include detailed and clear information about the applied methods, procedures and materials relevant for the doctoral thesis; this chapter may be divided into the following two subchapters:
  - **Methods and procedures**: presentation of the applied methods and measurement procedures and why they are used, calculations, and modelling and other procedures, including experimental parameters, load spectra and the like; and
  - **Materials and samples**: presentation of material selection and samples used in the final paper.
- 18. **Results**: presentation of measurement results, analyses, recalculations, and the like.
- 19. **Discussion**: presentation of result explanation and commentary. To ensure clarity and transparency, you shall divide this into several subchapters. The final form must be as transparent, clear and comprehensible as possible.
- 20. **Conclusions**: This final chapter briefly presents the key contribution of the thesis and does not include figures, tables and graphs.
- 21. **Literature**: A list of the literature used; the 'Template for doctoral theses at the FME' provides instructions on citation and resource provision.
- 22. Exceptionally, **Appendix** (or Appendix A, Appendix B, etc.): This should include the information that is necessary for the presentation that would be distracting in the basic report because it would distract the reader from the basic topic, for example, long equations, numerical calculations, repeating diagrams and the like.
- 23. Curriculum Vitae.
- 24. An empty sheet.
- 25. If necessary, **assembly, working drawings and plans** shall be inserted in a special pocket on the inside of the back cover, either hard copy or on CD.
- 26. Extensive calculations, computer printouts, interim tables and the like required for objective

thesis review shall be added to mentor and co-mentor's copies as a special appendix outside the binding and mentioned in the basic report.

### 3. Doctoral thesis format – hard copy

Write the A4 format thesis using Times New Roman, font size 12, single spacing with internal page margins of 3 cm, upper page margins of 3 cm, external page margins of 2.5 cm and bottom page margins of 2.5 cm. The doctoral thesis must be written in the 1<sup>st</sup> person plural. The content part shall be 100-120 pages of text excluding appendices.

The final version of the doctoral thesis must be **bound in hard** dark-coloured **cover**, such as black, dark blue, dark green, dark brown and dark grey. The spine must include the **code and sequence number of the thesis** provided on the approved doctoral thesis topic obtained from the Student Affairs Office, e.g. DR III/99, at its upper and the **surname and name of the author** at its bottom part to be visible when the thesis is on a shelf – see Appendix 'Doctoral thesis spine'. The bottom and top indenting should be 3 cm. The text should start bottom up (see Appendix). Font size should be 16 or less.

The doctoral thesis should be **duplex printed**, which requires turning on the Mirror Image option as in the 'Template for doctoral theses at the FME'; to these ends, each of the non-content parts of the thesis (points 2-13 above) shall start on an odd page; likewise, each of the main chapters (points 14-23 above) shall start on an odd page.

Content **pagination** (points 14-23 above) shall be continuous, in Arabic numbers and shall start with the Introduction. Formal non-content thesis pages (points 3-13 above) shall be numbered separately in lower case Roman numbers, starting on the repeated title page (point 3), whereas pagination shall start with the acknowledgment or inscription, that is the number 'v'.

#### 4. Doctoral thesis submission

The doctoral thesis shall be submitted in linguistically and terminologically correct Slovenian one week prior to the scheduled session of the Committee for Doctoral Study.

Firstly, a spiral bound A4 hard copy shall be submitted for review to the Committee for Doctoral Study and one copy to the Student Affairs Office. Candidates shall submit the additional number of copies required to the Student Affairs Office the day after the Senate has appointed the Committee for the evaluation of the submitted doctoral thesis.

No later than eight days before the defence of the doctoral thesis, candidates shall deliver a doctoral thesis in **printed/hard copy form** to the Student Affairs Office, that is A4 hard bound, for each committee member and the mentor, and two additional copies for the National and University Library (NUK).

The doctoral thesis in electronic form shall be submitted as an **unlocked** PDF and written in Slovenian if not determined otherwise with the Faculty of Mechanical Engineering. The electronic version must be **identical to the hard copy version**.

If the thesis contains protected or confidential information, the Dean may, at the information owner's request, approve a temporary delay of publication of no more than 5 years after the public defence. If necessary, the doctoral student shall submit the 'Application for doctoral thesis publication delay' (see Appendix) when he or she submits the hard copy. The Student Affairs Office marks the thesis for publication delay with a stamp and if the thesis publication delay is approved, a written decision is issued. If an information owner wishes to delay publication, the 'Application for doctoral thesis publication delay' shall be enclosed in the thesis when it is submitted to the Student Affairs Office. If the 'Application for thesis publication delay' is irrelevant, it shall not be enclosed in the final work.

After successfully completing their defence, students submit their FME library certificate to the Student Affairs Office to confirm that they have returned all of the literature they had borrowed. Doctorates shall not be issued if the FME library certificate is not submitted.

## 5. Respecting intellectual and material property

All FME students and employees shall respect intellectual and material property as determined below.

### 5.1. Primary source citation

Every written report, such as seminar papers, diploma theses, master's theses and dissertations, shall contain citations for resources from which explanations, figures, tables, construction solution, mathematical forms and the like came. The citation may be provided only once in an individual subchapter or chapter, except for figures, if the entire subchapter or chapter summarises one author's work. Other diploma and master's theses, dissertations, other studies, reports and manuscripts shall also be cited, and domestic and non-domestic authors shall be equally respected. When presenting seminar papers and final work before a committee, students shall explicitly indicate what they've taken from elsewhere and what is their own work. Of course, it is understood that final work only summarising non-domestic works is not permissible!

### 5.2. Material property

An idea for an individual's final work may be provided by the mentor, student and mentor, doctoral student, economic entity, public institution or others. If the thesis is entirely financed by an external client for whom the results are intended, such clients are the material owner of the obtained results. If the thesis is paid for from RS public funds, the results are owned by all citizens of the Republic of Slovenia under the conditions determined by the government. If a thesis is not financed by someone outside the laboratory or if financing is only partial, the laboratory where the thesis is implemented is the material owner or co-owner of the results. The student may become a material owner of results of his or her work if he or she was involved in the idea for the thesis, had no external financing and did not only use previous results that are not yet in public ownership; the share of material ownership of thesis results that the student gets in this case depends on the share of knowledge and new ideas contributed by the student in relation to the ideas provided by the mentor and other laboratory employees, and such co-ownership must be established in writing during doctoral thesis submission.

Public and written acknowledgment to the client and payer of individual research should be ensured.

#### 5.3. Intellectual property

A student's intellectual property rights in relation to thesis results, regardless of material ownership, is in proportion to the knowledge and new ideas contributed by the student in proportion to the knowledge and ideas contributed by the mentor and other laboratory employees. The established intellectual co-ownership proportion applies both when indicating authors in publications as well as in obtaining patent documents.

# 6. Appendices

The 'Template for doctoral theses at the FME', which doctoral students should use to prepare the doctoral thesis, is an integral part of these instructions. The template defines the style and formats of text, titles of chapters, titles of figures and tables, tables of contents, citation method, and the like which students shall consistently apply in the thesis.

### Appendices to instructions:

- Template for doctoral theses at the FME;
- Application for doctoral thesis publication delay; and
- Doctoral thesis spine.

In Ljubljana, 25 March 2015

## **Doctoral thesis spine**

(the part visible from a book shelf)

The bottom and top indenting should be 3 cm. The text should start from the bottom up (see example). The font size should be 16 or less.

# Application for doctoral thesis publication delay

(pursuant to Article 51 of the Rules on doctoral studies at the UL FME)

1. To be completed by the student	•		
I, the undersigned,	, born on	in	, hereby ask for
doctoral thesis publication delay <b>b</b>	y one year from the de	fence date, with the possib	ility of further extension
by another year if supported by gr	ounded reasons.		
Doctoral thesis title:			
Thesis number:			
Mentor:			
Co-mentor:			
Grounds for delay:			
In Ljubljana, on	Stud	ent's signature	
Mentor's consent (confirmed with	,		
2. To be completed by the FME			
a)	Approved	b) Unapproved	
Decision No.:			
Date:	Dean's signature:		
3. To be completed by the FME			
DECISION:			
The doctoral thesis of the student_		, under No.	, shall for
grounded reasons based on the De			
in the Faculty of Mechanical Engi			
delay until		·	
			:::::::::::::::::::::::::::::::::::::::
Remark:  — The mandatory additional copies of the state o	he doctoral thesis are publicly	available at the FME library, th	e National and the

request, approve temporary publication delay at a maximum of 1 year from the public defence with the option to extend it. If the publication delay is approved, a written decision shall be issued.

University Library. If the doctoral thesis includes protected or confidential data, the Dean may, on the data owner's written

- The student shall submit the publication delay application together with the submitted doctoral thesis copy to the Student Affairs

Office.