Guidelines for the preparation and design of final theses (BA & MA) at the Faculty of Mechanical Engineering (hereinafter: theses)

1. General (formal) part of the thesis

Regardless of the type and content of the thesis, each thesis must include the following formal sections, which must follow the sequence given here (see Thesis template – in the template, the student replaces the sample (red) text with information relevant to his/her thesis, and colours the text black):

1. The title page should be formatted as in the example shown (first page of the Thesis template); enter the relevant information: title of the thesis, first and last name, information on the type of thesis, i.e.:

Diploma thesis of the Erasmus+ Student Mobility for Studies programme or

Master's thesis of the Erasmus+ Student Mobility for Studies programme

and the month and year in which the thesis was defended (and the code and serial number on the back of the dissertation, which you can get from the library). The title pages should follow the Thesis template:

- 2. A blank sheet.
- 3. **Repeated cover page**, but with the details on the mentor and co-mentor.
- 4. The original **signed thesis topic**.
- 5. Acknowledgment and/or dedication (optional). In your acknowledgements, please thank those who have helped to make the work possible and without whom it would not have been produced in the form it is. It is usually the mentor, the co-mentor, and the institution that may have financially or otherwise supported the thesis that should be thanked first and foremost. This is followed by assistants, other collaborators, and your colleagues who helped with the theoretical and experimental work. Finally, we usually thank our family.
- 6. **Declaration:** this is a declaration of authorship and non-plagiarism, permission for publication, etc. The student should fill in the necessary information (the student's full name, date and place of birth, thesis type, names and academic titles of the student's advisor and co-advisor) and sign the declaration. The date on the form should correspond to the date of submitting the final thesis to the International Students Office.
- 7. **Abstract of the thesis (in English):** The student provides the necessary information on **one (1)** page:
 - UDK number, which you should request at least 3 working days before the submission of the electronic version of the thesis by email to knjiznica@fs.uni-lj.si (Faculty of Mechanical Engineering Library), based on the keywords and abstract (e.g.: 123.45:678.91:234.56(789.1)),
 - the serial number, which is written on the signed thesis topic sheet or given to you at the International Students Office (e.g. MAG II/99 E or VS I/99 E),
 - title of the thesis,
 - first and last name of the student,
 - keywords: usually between 5 and 10 keywords; keywords should always be lowercase (and

- plural where this makes sense),
- abstract: an abstract is a concise presentation of the contents of a document without explanations or critical highlights. It should be 100-200 words long.
- 8. **Abstract (in Slovenian):** Same as under point 7.: translated into Slovenian, on a new page, but again all on one (1) page. When translating technical terms, you should consult the latest literature in the field (e.g., foreign academic papers).
- 9. Structured table of contents with page numbers where each chapter or sub-chapter begins.
- 10. **Table of figures** with page numbers where each figure appears.
- 11. **Table of tables** with page numbers where each table appears.
- 12. **List of symbols used** with a precise and clear explanation and indication of the unit. The symbols always follow each other in alphabetical order. Greek symbols and Greek indices are also listed at the end of the list, also in alphabetical order. The basic and derived units of measurement shall be denoted in accordance with the International System of Units (SI). Symbols shall, as a rule, be written in italics. If there are a lot of equations and derivations in the problem where e.g., vector quantities or e.g., average values of quantities occur, you can write this in the foot of the table (e.g.: Footnote: Bold letters represent vector quantities.)
- 13. **List of abbreviations used** with their meaning clearly presented. The abbreviations follow each other in alphabetical order. When choosing an abbreviation, give preference to the abbreviation most used in books, academic papers, and other literature. For abbreviations that are the initials of a foreign phrase, write the original foreign phrase alongside the translation in italics.

2. Body of the thesis

Regardless of the type of work (research or development type), the body of the thesis should be divided into meaningful chapters, namely:

- 14. **Introduction:** The introductory chapter should contain at least one introductory paragraph on the topic, followed by an outline of the background to the thesis, its purpose and significance, and the objectives to be achieved.
- 15. **Theoretical foundations and/or literature review** Whether the thesis is theoretically or experimentally oriented, it is first necessary to work on the theoretical foundations of the subject.
- 16. **Research methodology:** This chapter should contain detailed and clear information on the methods, procedures, and materials used that are relevant to the thesis. For example, a chapter can be divided into sub-chapters:
 - **Methods and procedures**, where the methods and procedures used for measurements, calculations, modelling, and other procedures should be presented and justified, including experimental parameters, load manifolds, etc,
 - Materials and samples, which should present the choice of materials and samples used in the thesis.
- 17. **Results:** In this section, you present the results of your measurements, analyses, calculations, etc.
- 18. **Discussion:** In this section, provide an explanation of the results and a commentary. To ensure clarity and transparency, you can, if necessary, combine the Results and Discussion chapters into one chapter (**Results and Discussion**), where you can discuss the results on an ongoing basis. The final format should be as transparent, clear and comprehensible as possible.
- 19. **Conclusions:** This is the final chapter, which briefly outlines the key contributions of the thesis.

- Suggestions for further work are added where appropriate. The conclusion does not contain figures, tables, or graphs.
- 20. **Bibliography:** List if bibliography used. For guidance on citing and referencing sources, see the Thesis template.
- 21. Exceptionally **Appendix** (or Appendix A, Appendix B...): It should contain such information as is necessary to show completeness, but which would distract from the main report by diverting the reader's attention from the main topic (e.g., lengthy derivations of equations, numerical calculations, repetitive diagrams, printouts of programmes, etc.).
- 22. A blank sheet.
- 23. If necessary, **composite and shop drawings or plans** to be placed in a separate pocket on the inside of the back cover or included on a CD, also in a pocket on the inside of the back cover.
- 24. More extensive calculations, computer printouts, intermediate tables, etc., which are necessary for an objective review of the thesis, may be attached to the copy given to the mentor (and comentor) as a separate appendix outside the binding and mentioned in the basic report.

3. Format of the thesis – hard-cover copy

The thesis should be **written in** Times New Roman font, 12 pts., single spaced and on A4 size paper within a margin of 3 cm (inner page margin), 3 cm (top), 2.5 cm (outer page margin) and 2.5 cm (bottom). The thesis must be written in the first-person plural. Depending on the type of thesis, the content should **include**:

- for BA theses of the Erasmus+ Student Mobility for Studies programme **40-60 pages** (starting with Introduction and ending with Conslusion both included),
- for MA theses of the Erasmus+ Student Mobility for Studies programme **50-100 pages** (starting with Introduction and ending with Conslusion both included).

The final version of the final work must be **hard cover bound** in a dark colour (black, dark blue, dark green, dark brown, dark grey). The spine of the binding (to be visible when the thesis is placed on the shelf – see appendix 'Spine of the Thesis') must have **the code and the serial number of the thesis** given on the approved thesis topic that you have obtained from the International Students Office (e.g. MAG II/99 E or VS I/99 E). The text should be indented 3 cm from the top edge of the thesis. The text should start from the bottom up (see appendix). The font size should be 16 pts. or smaller.

All BA and MA theses should be **printed double-sided**, so the Mirror Image option must be activated as in the Thesis template for double-sided printing. In this case, for double-sided printing, each of the non-content parts of the thesis (listed in points 2-13 of these instructions, i.e. the inside cover, acknowledgements, table of contents) must start on an odd page. Also, when printing on two sides, each of the main chapters (from points 16-23 of these instructions, i.e. Introduction, Theoretical foundations and review of the literature, etc.) must start on an odd page.

The **page count** of the substantive part of the thesis (paragraphs 14-21 of these guidelines) should be continuous, numbered in Arabic numerals, and should begin with the Introduction. The non-content (formal) pages of the thesis (referred to in points 3-13 of these instructions) should be numbered separately with lower-case Roman numerals. The counting of formal pages should start with the repeated cover page (point 3) and the numbering should start with the acknowledgement or dedication (i.e. with no. v for double-sided printing).

4. Submission of the thesis:

Deadline for submission of the final thesis for review to the Erasmus+ comission is 2 weeks prior planned defence of the thesis.

Thesis must be submitted in linguistically and terminologically correct English language. The student must submit the final thesis in PDF format to the International Students Office by e-mail to valentina.hajdinjak@fs.uni-lj.si or international@fs.uni-lj.si. By submitting his/her consent to the submission of the thesis via e-mail, the mentor confirms that he/she has reviewed the submitted work and agrees to the submission.

Theses of Erasmus+ Student Mobility for Studies are submitted for review to the Erasmus+ Committee. After the review of the thesis, the Committee will provide the student with comments and conclusions, which the student will consider and incorporate into the thesis. The student submits latest version of the work with the corrections included **no later than on the day of the defence**, in **printed, i.e., hard-bound copy** in A4 format (1 original copy to be delivered to the International Students Office, and a copy to be given to the mentor and co-mentor as agreed).

Without the submitted hard-bound copy of the final thesis, the defence of the thesis is not possible!

Deadlines for defences of final theses:

- 31 March (1st semeter Erasmus+ students)
- 31 August (2nd semester and full academic year Erasmus+ students)

The BA or MA thesis must be submitted and defended <u>within student's Erasmus+ mobility</u> <u>period at the Faculty of Mechanical Engineering, University of Ljubljana.</u>

Submission and defences of final theses are NOT POSSIBLE DURING THE ANNUAL LEAVE (please see the academic calendar of the study year).

5. Respect for intellectual and material property

Every student or employee of the Faculty of Mechanical Engineering under the University of Ljubljana must respect intellectual and material property as set out in the following points.

5.1. Citing primary sources

In every written report (term paper, undergraduate thesis, master's thesis, doctoral dissertation, etc.), the source of each summarised explanation, the source of each summarised figure, table, design solution, mathematical form, etc., must be indicated (cited). A reference may be made only once in each subchapter or chapter (except for figures) if the whole subchapter or chapter is taken from a single author. Other undergraduate and master's theses, doctoral dissertations, reports, and manuscripts should also be cited. In this respect, domestic authors must be respected in the same way as foreign authors! Even when reporting on term papers or theses to a committee, it is necessary to show what is summarised and what is the reporter's own contribution! It is understood that theses that are merely a summary of something else are not allowed!

5.2. Material property

The idea for a thesis can come from the mentor, the student and the mentor, a PhD student, an economic entity, a public institution, or anyone else. If the thesis is fully funded by the sponsor of the

results outside the laboratory, the material owner of the results obtained from the thesis shall be the sponsor of the thesis. If the thesis is paid for from public funds of the Republic of Slovenia, the results are the property of all citizens of the Republic of Slovenia under conditions prescribed by the Government. If the thesis has no or only partial external funding, the material owner or co-owner of the results is the laboratory in which the thesis is performed. A student can become a material co-owner of the results of his/her work if he/she has contributed to the idea for an unfunded assignment and has not used only preliminary results that are not yet in the public domain. In this case, the share of material ownership of the results of the thesis that the student will get depends on the share of knowledge and new ideas contributed by the student in relation to the ideas of the mentor and other collaborators in the lab. Such co-ownership must be established in writing at the time of submission of the thesis.

It is also a matter of good practice to publicly and in writing thank the commissioner and payer of each research.

5.3. Intellectual property

In any case, the student's intellectual property of the results of the thesis (irrespective 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 collaborators in the laboratory. The identified share of intellectual co-ownership then applies both to the citation of authors in publications and to the obtaining of patent documents.

6. Appendices

The 'Thesis template' is an integral part of these guidelines and should be used by the student to produce the thesis. The template defines the style and format of the text, chapter titles, figure and table captions, tables of contents, citations, etc., which the student is expected to follow strictly in the thesis.

Appendices to the instructions:

- Thesis template,
- Spine of the thesis.

In Ljubljana, 26 September 2023