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GRADUATION THESIS WRITING DIRECTIVE

WARNING: THIS THESIS WRITING GUIDE IS PREPARED FOR INFORMATION PURPOSES AND IS NOT AN EXAMPLE OF THESIS WRITING. SAMPLE THESIS TEMPLATES ARE PROVIDED IN BOTH TURKISH AND ENGLISH AS AN APPENDIX TO THIS MANUAL.

1. INTRODUCTION

The Graduation Thesis / Project to be submitted to the Mechatronics Engineering department is written in accordance with the principles specified in this guide.

A) GRADUATION THESIS DELIVERY (BEFORE DEFENSE)

• Undergraduate Graduation Theses are submitted to the head of the department in plastic bound (spiral cover) (1 copy) before the thesis defense. It is checked by the thesis supervisor regarding the content and It is checked by the research assistant regarding the formatting. The detected deficiencies are marked on the thesis and returned to the thesis owner for correction until the defense date.

B) GRADUATION THESIS DELIVERY (DURING DEFENSE)

• **1 white paperback bound thesis** is submitted to the thesis jury on the date of defense. Information about the formal format of the white cardboard cover can be obtained from the photocopy center.

Theses that are not written in accordance with the formats specified in the thesis writing directive are not accepted.

- A CD or DVD that contains:
 - A 1-3 minutes demonstration video (.mp4) containing a brief demonstration of the project including all group members;
 - .pdf and .doc files of the thesis;
 - Defense presentation .pptx file;
 - Software codings (if any);
 - All materials related to the project such as technical drawings, CAD files, analysis files.

... must submitted with the thesis. This CD should be affixed to the back cover of the white-coated thesis in a CD sleeve.

Page No Not numbered Outer Cover _ Inner Cover i It is counted in Roman numerals, not shown on the page. Thesis approval form ii It is counted in Roman numerals, not shown on the page. The Roman numeral is put in the bottom middle Preface iii+ of the page. Table of Contents " Abbreviations " List of Tables " List of Figures • • • • List of Symbols • • • • " English Abstract " **Turkish Abstract** " The Arabian numeral is put in the bottom middle Introduction Section 1 +of the page. Other Sections • • • • " Results and discussion • • • • " References •••• " Appendix " Resume "

Generally, the order of the information to be included in a thesis is shown below.

2. GENERAL WRITING RULES

- Theses are prepared in computer environment and printed by laser or inkjet printers.
- Typewriting and dot matrix print-outs are not accepted.
- Corrections, deletions or scrapings made by hand or by typewriting in any part of the thesis are not accepted.
- The tables, figures and formulas in the thesis are created in computer environment. Figures that cannot be created in computer environment are drawn according to technical drawing principles, text and symbols are written with use of templates. **There is no manual correction in such shapes.**
- <u>All tables and figures in the thesis are cited in the text.</u>

2.1 Paper and Duplication System to be Used

Theses must be printed in A4 standard ($21 \times 29.7 \text{ cm}$, 80 g / m2) on white high-grade uncoated paper and copies must be clear and readable.

2.2 Writing Style

Plastic cover (spiral cover) theses can be delivered with double sided and in black and white format. However, for the final theses to be submitted at the last, printing will be done on one side of the paper and it will be in color. If the thesis is longer than 100 pages, it can be printed double-sided. In such a case, attention is paid that the first page of each section (first degree titles / Main Headings) to be on the right pages in the reading direction.

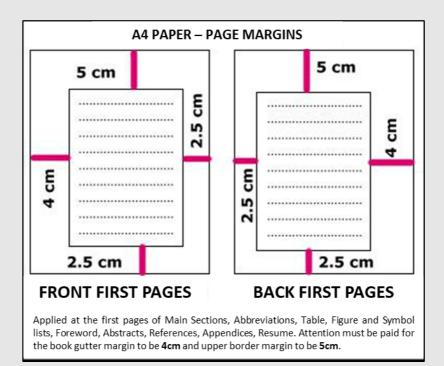
2.2.1 Font type

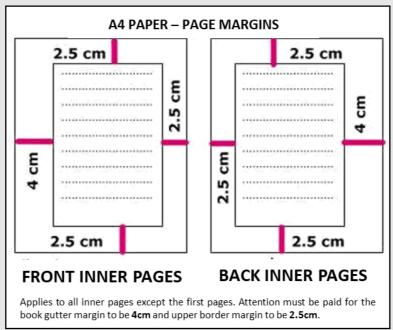
Times New Roman style shall be used in 12 font size and Arial style shall be used in 11 font size. If mandatory, font sizes can be reduced by 1. It can be reduced up to 8 font size in tables and figures if desired. **In long quotations written by pulling from the left margin, 2 fonts smaller characters are used.**

The text is written in vertical and normal letters, **bold** letters are used in headings. *Italic* typeface can be used only when necessary (Latin words, abbreviations, theory / description etc.). **One space is left after the comma and the period.**

2.2.2 Page layout

In the thesis, margin of 4 cm from left and 2.5 cm from the other edges should be left. If there are footnotes, they must remain within these limits. In all first pages (table of contents, abbreviations, table, figure and symbol lists, foreword, abstracts, main sections, references, appendices, etc.) the title line is located 5 cm below the top of the page with a 72 point space for the title. In the thesis text, words are not separated from syllables with hyphens. The text must be justified to left and right borders.





2.2.3 Headings, line spacing and order

The term 'spacing' in the grid is the distance from the lower edge of one line to the lower edge of the other line. 1 spacing is approximately equivalent to two lowercase letter sizes. "Point" on the other hand is the unit of font height and is taken as 1/72 inch (0.35 mm).

- Thesis text is written in 1.5 spacing. Before and after the paragraphs 6 point space is left. No blank lines are placed between paragraphs.
- Abbreviations, Tables, Figures and Symbols lists, Preface, Abstracts, References, Annexes, CV, names and explanations of the Tables and Figures in the text and footnotes are written with 1 spacing.
- While preparing the list of abbreviations, tables, figures and symbols, explanations are written as in the normal text, leaving 6 pt before and 6 pt after it.

In the **first-degree titlesi s**pace of 72 points before the title and 18 points after the title are left. In the **second-degree titles, s**pace of 18 points before the title and 12 points after the title are left. In the **third and fourth headings, s**pace of 12 points before the title and 6 points after the title are left. **The titles lower than the fourth degree must not be numbered, and if it is necessary, the title is created with bold font without numbering and only the first letters are capital.**

Titles cannot be written as the last line of the page, if 2 lines of text cannot be written after the title, the title must be placed on the next page.

All titles are written in bold type. In first-order titles, ALL LETTERS ARE CAPITAL, in second-order titles, The First Letter of Each Word Is Capitalized, in third and fourth-order titles, Only the first letter of the title is capitalized.

The first line of a paragraph cannot be written as the last line of a page. Similarly, the last line of the paragraph cannot be written as the first line of a page. (Lines cannot be "widows" / "orphans" as called in printing).

2.2.4 Page numbering

- All pages of the thesis are numbered, except for the outer and inner cover.
- The beginning part of the thesis consists of the Preface, Table of Contents, List of Abbreviations, List of Tables, List of Figures, List of Symbols, Turkish and English Abstract sections.
- The text (body) part of the thesis consists of the Introduction, other main chapters, Results and / or discussion, References, Appendices and CV.
- The beginning part of the thesis is numbered with small Roman numerals (i, ii,...) starting from one, and the text part is numbered with Arabic numerals (1, 2,...). Page numbers are placed in the lower-middle of the page in the text reading direction and 1.5 cm above. In horizontal pages the page number is written in the lower-middle of the long edge.
- Page numbers should be written in the font used for the text, font size should be **11 pt for Times New Roman and 10 pt for Arial.**

2.2.5 Tables and figures

- Tables and figures should be placed as close as possible after the first mention in the text. (They must comply with the rules of page layout.)
- More than one table or figure can be placed on the same page. However, no more than two pages of continuous tables or figures can be given. Numerous tables or figures can be given in appendices when necessary.
- In the tables and figures, the first number is the section number (in annexes it should be a letter), the second number is the sequence number of the table (or figure) in the section, numbers are given sequentially like in the main sections "Table 1.2:", "Figure 1.1:", in the appendices "Table A.1:", "Figure B.1:".
- The number and explanation of each figure is written below the figure (subscript), and the number and explanation of each table is written above the table (superscript).
- The table superscripts should be written using one line (single) spacing in the word processor and leaving 12 pt before the text and 6 pt after the text.
- The table superscript and the entire table should be on the same page.

- In tables of more than one page long, the same table number and its caption should be written at the beginning of the second page. Between the table number and its caption, for Turkish "(devam)" and for English "(continued)" or "(contd.)" must be written in parentheses.
- The first paragraph in the text section following a chart should be written **12 pt from the top and 6 pt from the bottom**. The headings that will come right after the charts should be used exactly without making changes in the heading formats specified in 2.2.3 above.
- The space between the figure and the figure caption is set in your word processor in the form of figure subscript with 6 points before the text, then 12 points after the text. The name of the figure is written with single spacing. The caption of the figure and the entire figure should be on the same page.
- In figures larger than one page, the same figure number and subtitle should be written at the end of the figure on the second page. Between the figure number and its caption, for Turkish "(devam)" and for English "(continued)" or "(contd.)" must be written in parentheses.
- Figures should be formatted to be "in line with text". The last paragraph in the text section before a figure should be written 6 pt from the top and 12 pt from the bottom.
- When necessary, the footnotes used for the tables should be written with 1 line spacing and 2 font sizes smaller than the text..
- Graphics, pictures and notes given in the thesis should be numbered and explained as figures.
- Short notes explaining an idea in the text can be placed at the bottom of the page in the text sections. Long notes are given in appendix.

2.2.6 Equations

- Equations are written with **1.5 line spacing**.
- 6 point space is left before and after the equations.
- No blank lines are placed before or after the equations.
- Equations are numbered sequentially, starting from one, provided that the section number is the first number in the relevant section. These numbers are written in **bold** on the far right side of the line where the equation is located as

in the first seciton, [(1.1), (1.2),,]; in the second section [(2.1), (2.2), ...]. If necessary, sub-expressions of the same equation is written as (1.1a) and (1.1b).

3. RULES ON WRITING THE THESIS AND SECTION CONTENTS

3.1 General Writing Rules

Spelling and punctuation in theses will be complied with the **Oxford English Dictionary**. If it is necessary to use words and phrases that are not found in the aforementioned dictionary, their meaning and the reason for use will be explained with a footnote.

SI units will be used in theses, if necessary, the equivalent in Imperial units will be given in parentheses. Each symbol will be identified at the first occurrence in the text. In theses, first person expression (I,My,Me) can not be used, except for the preface and footnotes.

3.2 Beginning Section

3.2.1 Preface

- It is written as the first page of the sections and does not exceed one page.
- Institutions and people who helped the thesis can be thanked.
- Under the text of the preface, name-surname is written as right aligned and the date (month, year) is written left aligned. These two elements should be in the same line.

3.2.2 Table of Contents

- Table of Contents is written with **1 line spacing**.
- First-order headings are written as IN BOLD CAPITAL LETTERS; secondorder headings are written as Bold and the First Letter of Each Word Is Capitalized. Heading greater then Third-order are written as Bold and only the first letter of first word is capitalized. There are no points (0 pt) left before or after headings.

3.2.3 List of abbreviations, charts, figures and symbols

• If there are Abbreviations, Tables, Figures and Symbols in the text, relevant lists should be created. These lists should be prepared with 1 line spacing, leaving 6 pt space before and 6 pt space after.

3.2.4 Turkish and English abstracts

- Abstracts should be between **1-5 pages**, provided that they are not less than 200 words.
- In the abstracts, the problem addressed in the thesis is briefly introduced, and the used methods and the achieved results are stated.
- No references are not given in the abstracts.
- If there are Equations, Figures, Tables etc. used in the Abstract they are numbered regardless of the other sections.
- Turkish Abstract is equivalent to English Abstract.
- At the beginning of the abstracts, "**ABSTRACT**" will be written in capital letters on the center of the page and as "**ÖZET**" will be written for Turkish abstracts. These headings also must be in first degree heading format. (72 pt spacing before, 18 pt. spacing after).
- Under the heading "ABSTRACT" English name of the thesis must be written as ALL IN CAPITAL AND BOLD LETTERS with 1 line spacing, with 12 pt before and 12 pt after spacing. Same applies for the Turkish Abstract as well.

3.3 Text (Body) Section

- The text section includes Introduction, main and subsections, Results and / or discussion sections and is written without page count limitations.
- If it is necessary to give a footnote, it should be written at the bottom of the relevant page in 2 font size smaller than the text. Footnotes should be separated from the text with a thin horizontal line.

3.4 References

- All resources cited in the text are written on the references page.
- References can be cited in the text as described below.
- Text and the display in References must be the same.
- The heading "References" should be written using 1 line spacing as in the other first-degree headings (72 pt before, 18 pt after spacing).

• If it is the article, the name of the journal, if it is the book, the title of the book, or if it is presented at a meeting (congress, conference, workshop, etc.), the name of the meeting is written in *italics*.

3.4.1 Reference by number

References are numbered in [] brackets according to the order they appear in the text. If it is desired to refer to the previously numbered source, the previous number is used.

References are cited in the text in the following ways.

- [1] \rightarrow Meaning: Reference 1,
- [1-3] \rightarrow Meaning: References between 1 and 3 (1, 2 and 3),
- [1,3] \rightarrow Meaning: References 1 and 3,
- $[1,3,8] \rightarrow$ Meaning: References 1, 3 and 8,
- $[1,3-8] \rightarrow$ Meaning: References between references 1 and 3 to 8,

A separate reference number should be given to each volume of sources with the same name with multiple volumes. When citing books, the page number should be specified along with the reference number.