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MUĞLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL
AND APPLIED SCIENCES
THESIS WRITING GUIDE



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MUĞLA

APPROVAL PAGE

In theses, the samples of Approval Pages given in the Appendix C1, C2, C3 of this Thesis Guide for M.Sc. and Ph.D. theses, respectively, will be used after making necessary changes and additions on the sample page by the author of thesis.

DEDICATION PAGE(no heading will be in thesis)

There is no Dedication Page for this Thesis Guide. However, thesis can be dedicated to the family members, friends or some scientists in their area of research by the author of thesis if there is a exceptional support for the completion of thesis. A heading for the dedication is not required, but it must have a page number. Dedication page must come right after Aproval page and its page number is “**iii**”. This page will not be shown in the Table of Contents. If used, the dedication must be brief and centered on the page. A sample of dedication page is given in Appendix D.

DECLARATION PAGE (no headings in thesis)

This page is left for the Declaration Page of the Thesis.

The author of thesis must use the sample of related Declaration Page given in the Appendix E of this Thesis Guide and make necessary corrections and changes related to his/her thesis. Declaration page has page number “iv” and this page is not shown in Table of Contents of thesis.

ACKNOWLEDGEMENTS

Muğla Sıtkı Koçman University, Graduate School of Natural and Applied Sciences offers graduate programs for different science and engineering fields. Some of these graduate programs give graduate education in Turkish language, but education in most engineering fields are given in English language. Theses in Master of Science and Doctor of Philosophy programs have to be prepared in English language, the same as the graduate courses are taught in the same language. Graduate students in programs where education in Turkish language have also opportunity to prepare their thesis in English language if they prefer and satisfy the rules indicated in Regulations of University. Thesis Writing Guide in English language for the graduate programs of Graduate School of Natural and Applied Sciences was missing upto now and is prepared, for the first time, in August 2022 by Prof. Mehmet GÜNEŞ, Prof. Pınar DOĞAN and Assoc. Prof. Görkem OYLUMLUOĞLU with exactly the same format and rules updated in Thesis Writing Guide prepared in Turkish language. We would like to acknowledge to Profesors M. GÜNEŞ, P. DOĞAN and G. OYLUMLUOĞLU for their effort and contributions to prepare the English version of Thesis Writing Guide.

ABSTRACT

This page is for the abstract of this Thesis Guide. Abstract in English language must be written according to the Abstract Writing Rules of TÜBİTAK as given in Appendix G of this Thesis Guide. A sample of ABSTRACT is presented in Appendix H.

ÖZET

This page is left for Turkish Abstract of the Thesis. Turkish Abstract must be written according to the Abstract Writing Rules of TÜBİTAK as given in Appendix G of this Thesis Guide. A sample of ÖZET page is given in Appendix I.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	v
ABSTRACT	vi
ÖZET (Abstract in TURKISH language)	vii
TABLE OF CONTENTS.....	viii
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF SYMBOLS	xiii
LIST OF ACRONYMS/ABBREVIATIONS.....	xiv
CHAPTER 1: INTRODUCTION.	1
1.1. General Guidelines.....	1
1.2. Theses Containing Potentially Patentable Information.....	1
1.3. Submission of the thesis to the Graduate School.....	2
1.4. Responsibilities of Graduate Student and His/Her Advisor.....	2
1.4.1. Basic Principles of Scientific Research Ethics	3
1.4.2. Basic Principles Regarding Publication Ethics	3
1.4.3. Unethical Issues/Actions	4
1.2. Hard Back Binding of Thesis	4
CHAPTER 2: THE TEXT, FORMAT AND APPEARENCE OF THESIS	5
2.1. The Main Body of Thesis	5
2.2. Headings.	5
2.3. Paragraphs	6
2.4. Margins.....	6
2.5. Font	7
2.6. Spacing and Centering	7
2.7. Word Divisions	7
2.8. Corrections.	7
2.9. Pagination	8
2.10. Tables and Figures	8
2.11. Mathematical Expressions.	9
2.12. Quotations.....	9

2.13. Citations and Referencing: Mendeley reference system.....	10
2.14. Illustrative Materials.....	11
2.15. Paper Quality.	11
2.16. Printing and Reproduction	11
2.17. Footnotes and Endnotes... ..	11
CHAPTER 3: GUIDELINES FOR THE FRONT AND THE BACK SECTIONS	13
3.1. The Front Section Pages.....	13
3.1.1. Title Page (Front Cover) and Spine	13
3.1.2. Title Page (inside the cover page).....	13
3.1.3. Approval Page.....	13
3.1.4. Dedication Page (if any)	13
3.1.5. Declaration Page	14
3.1.6. Acknowledgement Page	14
3.1.7. Abstract Page (for Thesis in English language).....	14
3.1.8. Özet Page (Abstract in Turkish language).....	14
3.1.9. Table of Contents Page.....	15
3.1.10. List of Figures Page.....	15
3.1.11. List of Tables Page	15
3.1.12. List of Symbols Page.	15
3.1.13. Acronyms/Abbreviations Page	16
3.2. The Back Section Pages.....	16
3.2.1. Bibliography or References Page.....	16
3.2.2. Appendices.....	16
3.2.3. Curriculum Vitae and Publication List (for Ph.D. Degree).....	17
APPENDICES.....	18
Appendix A.1. Sample of Title Page (Cover) and Spine (M. Sc.)	18
Appendix A.2. Sample of Title Page (Cover) and Spine (Ph.D.)	19
Appendix B.1. Sample of Title Page (inside the cover)(M. Sc.)	20
Appendix B.2. Sample of Title Page (inside the cover)(Ph.D.)	21
Appendix C.1. Sample Approval Page (Master of Science-3 jury members)	22
Appendix C.2. Sample Approval Page (Master of Science-5 jury members).	23
Appendix C.3. Sample of Approval Page (Doctor of Philosophy).	24
Appendix D. Sample of Dedication Page (if any).	25

Appendix E. Sample of Decleration Page.....	26
Appendix F. Sample of Acknowledgements Page.	27
Appendix G. TÜBİTAK Guide to prepare ÖZET and ABSTRACT.	28
Appendix H. Sample of Abstract Page	33
Appendix I. Sample of Özet Page (in Turkish)	34
Appendix J. Sample of Table of Contents Page.....	35
Appendix K. Sample of List of Figures Page.....	37
Appendix L. Sample of List of Tables Page.	38
Appendix M. Sample of List of Symbols Page	39
Appendix N. Sample of List of Acronyms/ Abbreviations Page.....	40
Appendix O. Sample of Curriculum Vitea Page	41
Appendix P. A sample of Figure to be replaced in the thesis, centered between the margins and framed with single line text box.	43
Appendix R. A Sample of Table to be inserted in a thesis, centered between the margins and replaced in a text box with a single line frame.	44
REFERENCES/BIBLIOGRAPHY.	45

LIST OF FIGURES

Figure A.1. Absorption coefficient spectrum of a semiconductor as function of photon energy obtained from the dual beam photoconductivity spectroscopy.	43
--	----

LIST OF TABLES

Table A.1. Preparation parameters of thin film materials and their structural and electronic parameters.	44
---	----

LIST OF SYMBOLS

There are no symbols to be listed in this Thesis Writing Guide.

LIST OF ACRONYMS/ABBREVIATIONS

CD: Compact disc.

CV: Curriculum Vitea

Ph.D.: Doctor of philosophy

M.Sc.: Master of Science

DOCX: Mirosoft Word document format.

PDF: Portable document file.

YÖK: Higher Education Council of Türkiye- Yükseköğretim Kurulu

APA: American Psychological Association

IEEE: Institute of Electrical and Electronics Engineers

TÜBİTAK: Türkiye Bilimsel ve Teknolojik Araştırma Kurumu

CHAPTER 1

INTRODUCTION

A thesis, as a requirement in a student's graduate education at the Graduate School of Natural and Applied Sciences of Mugla Sıtkı Koçman University, serves the primary purpose of training of the student in the process of scholarly research and writing under the supervision of the graduate faculty members. Therefore, the Graduate School of Natural and Applied Sciences and the graduate faculty members of Mugla Sıtkı Koçman University have established format standards that a thesis must meet before it receives the final approval as a graduate requirement. This publication sets forth the thesis standards for the Graduate School of Natural and Applied Sciences and provides guidance on a variety of matters related to the process of thesis preparation. It is expected that a thesis will be written in clear, grammatically correct English for students educated in the departments where graduate education is in English language.

1.1. General Guidelines

A thesis must be prepared using computer software such as MS Word in electronic format. All sections of the thesis; pages of front section, all chapters of thesis, figures, tables, pictures, photographs, the text, pages of back section, references appendices and Curriculum Vitae (for Ph.D.), must be prepared in a single WORD file in DOCX extension as well as in PDF format by using the specific guidelines explained in this Thesis Guide. A hardcopy of the thesis in its final binding and 3 different copies of electronic files in DOCX and PDF format copied in CD's must be submitted to the Graduate School after passing the thesis defence exam within the period indicated in the official regulations of Graduate School. Before having the final binding of hardcopy of thesis, a loose bound copy or an electronic version of the thesis must be submitted to the Graduate School to get a format approval according to the guidelines explained in this Thesis Guide. Please do not get the final binding of hardcopied thesis before having the final format approval of the Graduate School. It is imperative to obey all the guidelines of the Thesis Guide as you prepare your thesis.

1.2.Theses Containing Potentially Patentable Information

As the thesis proposal was first submitted to the Graduate School for the approval, if the patentable option of the thesis was checked on the first page of the Thesis Proposal Form and its patent application has been activated by the Office of Technology Transfer of the University, graduate student may request a maximum duration of six months hold on the release of his/her thesis to public after uploading the thesis to the National Thesis Center in YÖK. If this request is accepted by the Executive Committee of the Graduate School, the thesis will not be released to the public during this period. The decision of the Executive Committee will be sent to YÖK National Thesis Center right after the official graduation date. Furthermore, any thesis needs not to be released to the public after graduation date due to any reason such as preparation of the manuscript to the publication will be restricted to the public for a maximum six months of duration if the author of thesis and his/her thesis advisor request officially from the Graduate School.

1.3. Submission of the Thesis to the Graduate School

Before submission of the thesis to the Graduate School, graduate student must visit, <http://tez2.yok.gov.tr/tez.htm> , National Thesis Center of YÖK by using his/her “e-devlet password” to get “**Tez Veri Giriş ve Yayın İzin Formu**“ for his/her thesis. This form must be filled out electronically and saved. 3 copies of this form must be printed out and signed by ink by the graduate student before submission to the Graduate School. In addition, thesis advisor/supervisor must obtain “**Turnitin Tez İntihal Raporu**“ about the thesis and save this report. A copy of this Turnitin Report must be signed by ink by thesis advisor/supervisor and submitted to the Graduate School together with “Thesis Defence Jury Appointment Form- Tez Jüri Atama Formu”. After the approval of thesis defence committee by the Graduate School, the author of thesis is responsible to send a hardcopy or an electronic copy of his/her thesis to each jury members of the thesis defence committee a month before the defence exam.

After passing the defense exam, the author of the thesis has to do all necessary corrections in the thesis and submit a loose bound copy of corrected thesis or an electronic copy of the corrected thesis to the Graduate School (ensfen@mu.edu.tr) no later than 1 month after the defence exam. The file name of electronic copy must be labeled as “**NameOfStudent-NameOfDepartment-NameOfDegree.DOCX**“. A process of format review is carried out to make sure the fact that the thesis meets all the requirements set forth here. If the Graduate School defines certain necessary corrections to be done, all corrections must be made before handing in the final copy. The final copy of the thesis may be printed directly onto high quality (80gr) white thesis paper in A4 size or photocopied onto thesis paper from the master original. Thesis not submitted to the Graduate school within the official time interval indicated in the Regulations of the Graduate School will result in losing the degree of the graduate student.

After getting the final format approval of the thesis from the Graduate School, the author is responsible to get hard back binding of the thesis according to the format requirements of binding explained in this Thesis Guide. A required number of copies must be produced (one Copy for the Graduate School, one copy for each jury members of Thesis Defence Committee, one copy for the advisor and one copy for the author himself/herself) by the author of the thesis. When the required number of hard back copies of the corrected thesis are submitted to the Graduate School together with a signed Copy of “**Tez Veri Giriş ve Yayın İzin Formu**“, a ink signed copy of “**Turnitin Tez İntihal Raporu** “and **3 Electronic Copy** of the thesis in high quality CD’s as DOCX and PDF format (name of electronic file in CD must be labeled as “**StudentName-NameOfDepartment-NameOfDegree.DOCX**“), a copy of “**Approval Page**” of the thesis signed in ink and “**Declaration Form**” of the author indicating that s/he will deliver the hard back copy of thesis to each jury members of the Thesis Defence Committee, the thesis is examined once more to make certain that all revisions have been made; and that the paper and print are of the required quality; and that all the pages are available. If everything is in order, the thesis is approved by the Executive Committee of the Graduate School, and the student is notified.

1.4. Responsibilities of Graduate Student and Thesis Advisor

In preparation of any type of academic publications and theses, it is a universal ethical obligations to cite previously published studies, starting from the the first and earlier studies related to the work undertaken. This will show how the research advanced in the solution of the universal problem related to the research prepared by the student. Therefore, it is extremely important to obey to the internationally accepted rules of scientific research and

publication ethics. That is the main responsibility of the author of the thesis, graduate student, as well as the thesis supervisor. These rules of scientific research and publication ethics were strongly enforced by the Higher Education Council of Türkiye, YÖK, under the publication of the Regulations of Scientific Research and Publication Ethics (YÜKSEKÖĞRETİM KURUMLARI-BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ YÖNERGESİ) (<https://www.yok.gov.tr/Sayfalar/Kurumsal/mevzuat/bilimsel-arastirma-ve-etik-yonetmeligi.aspx>). The details of these rules were given in the Thesis Writing Guide of the Graduate School of Education of our University. It is also imperative that these guidelines are also summarized in this Thesis Guide as a guidance for the young academic people who will contribute to the development of science and technology in the near future. All the authors of thesis graduating under the Graduate School of Natural and Applied Sciences must not overlook any of these rules as they prepare their theses. They should always consult to their thesis advisors during the preparation of the thesis and read these rules summarized below not to violate any of these principles.

1.4.1. Basic Principles of Scientific Research Ethics

The basic principles to be followed in scientific research are as follows;

- Data is obtained by scientific methods. In evaluating, interpreting and obtaining theoretical results, scientific methods cannot be left, the results cannot be distorted, and the results that have not been obtained cannot be shown as research results.
- Participants' consent is obtained in surveys and attitude research to be conducted in social and humanities. If the research is to be conducted in an Institution, the permission of the Institution they are affiliated to is obtained in addition to the consent of the participants. Researchers and officials are obliged to inform and warn those concerned about possible harmful practices or effects regarding the scientific research.
- Researchers and those to whom data will be collected in the study have the right not to participate in research that may lead to harmful consequences and / or practices they do not approve according to their own conscience.
- In the works to be carried out, it is ensured that the data and information obtained from other people and Institutions are used as permitted, their confidentiality is respected and protected.
- Possibilities and resources allocated for scientific research cannot be misused.
- Any research related to the living organisms on Earth and life sciences must get an official permission to research in that topics from related the Office of Ethics before submitting the Thesis Proposal.

1.4.2. Basic Principles Regarding Publication Ethics

The basic principles to be followed in scientific publications are;

- People who have not actively contributed to the design, planning, execution and publication of the scientific research cannot be included in the names of the authors.
- While making use of a study in scientific publications, references are given in accordance with the scientific citation rules explained in detail in the following sections.
- Theses or studies that have not yet been submitted or have not been defended cannot be used as a source without the permission of the owner.
- Except for propositions such as universally recognized scientific theories, basic knowledge of science fields, mathematical theorems and proofs, all or part of the work cannot be published in translation or in its original form without permission and showing the original source.

1.4.3. Unethical Issues/Actions

Actions contrary to scientific research and publication ethics are;

- *Plagiarism*: Presenting the ideas, methods, data, practices, writings, figures or works of others as if they were their own, partially or completely, without reference to their owners in accordance with scientific rules.
- *Forgery*: To produce data that is not based on research, to edit or change the presented or published work based on unreal data, to report or publish them, to pretend that a research has not been done.
- *Distortion*: Falsifying (changing) research records and the data obtained, showing the methods, devices and materials not used in the research as being used, not taking into account the data that are not suitable for the research hypothesis, playing with the data and / or results in order to conform to the relevant theory or assumptions, the person receiving support and falsifying or shaping research results in the interests of organizations.
- *Republishing*: Publishing different works containing substantially the same results of a research.
- *Slicing*: Publishing the results of a research in a way that disrupts the integrity of the research, inappropriately fragmenting it and making a large number of publications without citing each other.
- *Unfair authorship*: Including non-active contributors among the authors, not including active contributors among the authors, changing the author's order in an unjustified and inappropriate manner, removing the names of those who have active contributions from the work during publication or in subsequent editions, using their influence even though they have no active contribution. to include his/her name among the authors.
- *Other types of ethical violations*: Not clearly stating the supporters, institutions or organizations and their contribution to the research in the publications of the research conducted with the support, sharing the information in a work for which they were assigned as a referee before publication, resources provided or allocated for scientific research,
- Using the spaces, facilities and devices for misuse, making allegations of completely baseless, unwarranted and deliberate violation .

1.2. Hard Back Binding of Thesis

The thesis should be bound in specified color for master of science and doctor of philosophy Separately. The size of final, bound copy of the thesis should conform to A4 paper size. The name and surname of the candidate, the degree obtained and the year should be printed, in the order specified, on the spine of the cover. When the thesis is placed front cover up, the spine should read from left to right.

CHAPTER 2

THE TEXT, FORMAT AND APPEARANCE OF THESIS

Thesis prepared by the graduate students which will carry the name of Muğla Sıtkı Koçman University, the Graduate School of Natural and Applied Sciences must comply with the guidelines defined in this Thesis Guide in order to meet the same high standards of presentation in terms of all pertinent physical properties, including format as well as paper and print quality. The following guidelines are related to the format and appearance of the thesis that the authors are going to prepare.

2.1. The Main Body of Thesis

Chapters are numbered consecutively in Arabic numerals and capital letters (such as CHAPTER 1, CHAPTER 2, etc.). In addition, each CHAPTER must have a general title like INTRODUCTION for CHAPTER 1, MATERIALS AND METHODS for CHAPTER 2, RESULTS for CHAPTER 3 and DISCUSSIONS AND CONCLUSIONS for CHAPTER 4. Title of the chapters must be short but substantially descriptive as well. CHAPTERS and CHAPTER TITLES must be centered on the page and written by 14 points character size in Times New Roman font. Each chapter must be organized by using different levels of sub-headings as described below. Double spacing is left after the chapter title and the text should start with 12 points character size. The References and Appendices are not considered as the main body of the thesis and they are considered as the final section of thesis. They are not labeled as CHAPTER. Each new CHAPTER must start at the top of a new page.

2.2. Headings

There are different level of headings in the thesis. These are labeled as the first level headings, the second level headings, the first level sub-headings and the second level sub-headings. The first level headings are **CHAPTER's** and **CHAPTER TITLES**, pages of the front section of the thesis; **APPROVAL PAGE, ACKNOWLEDGEMENT PAGE, ABSTRACT PAGE, ÖZET PAGE, TABLE OF CONTENTS PAGE, LIST OF FIGURES PAGE, LIST OF TABLES PAGE, LIST OF SYMBOLS PAGE, LIST OF ACRONYMS/ABBREVIATIONS PAGE** and in the back section of thesis; **REFERENCES** and **APPENDICES**. The first level of heading must be written as centered on the page, **14 points** in character size, **bold face** and 1.2 line from the top of the page. The text must start 2x1.2 line after the first level heading. Only, **Title** on Cover page and inside the cover, must be written using capital letters by **16 points bold face** Times New Roman centered between the margins

A CHAPTER consists of at least two or more the second level headings. For example, CHAPTER 1 – INTRODUCTION has two the second level headings as **1.1. Literature Summary** and **1.2. Thesis Objectives**. In the name of the second level heading, the first letters are capitalized and numbering starts with the number of CHAPTER, then numbering continues as 1, 2, 3, etc. It must be written as 12 points character size, Times New Roman font, **bold face** and full justified. There should be no period at the end of the heading text. Depending on the content of the CHAPTER, there might be more than two the second level headings. The second level headings should be separated from the preceding text or the first level heading and succeeding text or the first subheading by an empty 1.2 lines of text. If the

second level heading comes to the end of page, at least two lines and the second level heading must be written, otherwise the second level heading must start from the top of next page.

The second level of headings in a chapter can be divided into at least two or more the first level sub-headings. In the title of the first level of sub-headings, numbering starts with the number of CHAPTER, then a dot (.), number of related the first level heading, then a dot(.) and then number of the first level sub-heading continues as 1, 2, 3, etc.(such as 2.1.2,) The title must be written as the first letters are capitalized with full justification, 12 points in character size with Times New Roman font and **bold face**. There should be no period at the end of the heading text. For example; **2.1.1. “Chapter2 The First level Heading1 The First level Sub-heading1”** and **2.1.2. “Chapter2 The First Level Heading1 The First level Sub-heading2”** as the first level heading1 in Chapter2 was divided into two third level sub-headings.“ The name of title in the quotation mark will be replaced by the name of title you determine in your thesis.“ If the first level sub-heading comes to the end of page, at least two lines and the third level sub-heading must be written, otherwise the third level sub-heading must start from the top of next page. The first subheadings should be separated from the preceding text or second heading and succeeding text by an empty 1.2 line of text.

The first level sub-headings can also be divided into at least two or more the second level sub-headings. In order to keep the simplicity and clarity of the thesis, no more than the second level of sub-headings should be recommended. In the title of the second level sub-headings, the first letters are capitalized with full justification, 12 points in character size and must be written as *Italic*. There should be no period at the end of the heading text. For example; *2.2.2.1. “Chapter2 The First Level Heading2 The First Level Sub-heading2 The Second Level Sub-heading1”* and *2.2.2.2. “Chapter2 The First Level Heading2 The First Level Sub-heading2 The Second Level Sub-heading2”* as there are two the second level sub-headings in the first level sub-heading2. “ The name of title in the quotation mark will be replaced by the name of title you determine in your thesis.“ If the second level sub-heading comes to the end of page, at least two lines and the second level sub-heading must be written, otherwise the second level sub-heading must start from the top of next page. The second level subheadings should be separated from the preceding text or the first level sub-heading by a 1.2 empty line of text.

If there are two or more headings and sub-headings consecutively without any text between them, there must be at least 1.2 line between the first and other level headings/sub-headings. However, it will be better in formatting and understanding of the thesis if there are at least a few sentences between headings.

2.3. Paragraphs

The First lines of all paragraphs should be indented by one centimeter. A new paragraph should not begin at the bottom of a page unless at least two lines of the paragraph may be printed on that page. Each paragraph should be separated from the preceding and succeeding paragraphs by 6nk empty lines of text. The text in the paragraph must be full justified. There must be an empty space after every punctuation.

2.4. Margins

The left margin (binding side) must be 3.0 cm wide to allow for binding; other three margins must be 2.5 cm wide. These margins must be kept in each page of the thesis. Headings, text, tables, illustrations, etc., must all be contained completely within the area bounded by the margins. The whole text should be left and right justified.

2.5. Font

Times New Roman will be used as a character font and 12 points character size throughout the thesis. Script or ornamental fonts will not be allowed. **Bold face** letters, symbols, and italics may be used for special emphasis and foreign words. The font type and font size (for chapter titles, headings, subheadings, etc.) must be consistent throughout the thesis. The font sizes for different elements of the thesis must follow the rules given below:

Front cover and spine, back cover, title page (inside thesis): the text must be capitalized and **16 points bold face**.

The first level headings; Chapter headings and titles, headings of special pages in the front and back sections of the thesis: **14 points and bold face**.

The second level headings and the first level sub-headings: **12 points and bold face**,

The second level sub-headings: *12 points and italic*.

The text in formulas, equations, tables, table headings, figures, figure captions, references, etc.: 10 points.

2.6. Spacing and Centering

The text in the thesis, cover and title page including acknowledgement page must be written with an empty 1.2 lines of text. The text in the approval page, declaration page, dedication page, abstract page, özet page, table of contents page, list of tables page, list of figures page, list of symbols page, list of acronyms/abbreviations page, references, appendices, curriculum vitae, table captions, figure captions, footnotes, endnotes and text in tables must be written with an empty 1.0 line of text.

The first level headings (**CHAPTER's, CHAPTER TITLES, APPROVAL PAGE TITLE, ABSTRACT, ÖZET, ACKNOWLEDGEMENTS, TABLE OF CONTENTS, LIST OF TABLES, LIST OF FIGURES, LIST OF SYMBOLS, LIST OF ACRONYMS/ABBREVIATIONS, REFERENCES and APPENDICES**), table titles and figure captions must be centered between the margins. In addition, the text in the tables can either be centered or full justified.

2.7. Word Divisions

If any hyphenation is used, words must be divided correctly at the end of a line and may not be divided from one page to the next. Use a standard dictionary (American or British) to determine the correct word division. In text, unsightly spacing between words which may have been caused by left and right justification is not acceptable. In such cases, a proper word division must be used for those long words, manually.

2.8. Corrections

No ink corrections, strikeouts, correction fluid, correction tape, paste-ups, insertions between lines, or letterset are permitted on the final bound copies. If you have to make corrections after thesis defence, make them on the original manuscript (but not by ink corrections or strikeouts which are never allowed) according to the guidelines given in this Thesis Guide before it is laser printed for reproduction.

2.9. Pagination

Each page in the thesis must be counted and numbered. For the preliminary pages in the front section of thesis, small Roman numerals (i, ii, iii, iv, etc.) must be used. Preliminary pages include Title Page, Approval Page, Dedication Page, Declaration Page, Acknowledgments, Abstract, Özet, Table of Contents, List of Figures, List of Tables, List of Symbols, List of Acronyms/Abbreviations. However, do not print the roman numerals on the Title Page, Approval Page, Dedication Page, Declaration Page. Following page, Acknowledgements, should start with “v “ and appeared at the bottom of the page. Arabic numerals will be used in the main body of thesis starting from the CHAPTER 1 and numbering begins with "1" on the first page of the text and continue throughout the rest of the thesis, including references/bibliography, appendices and CV.

Page numbers must be typed using 12 points Times New Roman font and placed as centered at the bottom of the page within the area defined by the margins. Page numbers must not be embellished with punctuation such as dashes or periods, and the word “page” must not be typed before numbers.

2.10. Tables and Figures

All illustrative items such as graphs, figures, tables, charts, photographs, pictures, illustrations and lists used in thesis should be considered and designated as a **Figure** or a **Table**, whichever is appropriate. To ensure acceptable print, all drawings, graphs, illustrations and similar graphical material should be prepared with sufficient resolution. All text in Figures and Tables should be clearly legible with and should appear in at least 9 points. The guideline about the Tables and Figures of thesis are explained in detail as follows;

Tables and figures must be placed in the text as close as possible after its first mention. All tables and figures should be framed with single line borders and centered between the margins. If there is available space on the page, more than one tables/ figures can be placed on the same page. Please see the examples of Sample Figure and Sample Table in Appendix P and Appendix R, respectively.

Title of table and figure captions must be as short as possible, but must explain the content clearly. Table title and figure caption must be written after Table/ Figure number. Table title must be place above the table, however, the figure captions will be placed below the figure. Second line and other lines of table title and figure caption must be indented 1.75 cm from the left margin. Times New Roman 10points font will be used to write the table title and figure caption as full justified between the margins.

Numbering of tables and figures will start with the number of chapter, a period (.), then number of table/figure will continue as 1, 2, 3, etc., and ends with a period (.). For example; **Table 2.3.**, **Figure 4.2.** If it is in appendix, chapter number will be replaced by **A** (such as **Table A.5.**, **Figure A.3.**)

If a new page starts with a table or figure, do not leave any space before table title or before figure itself. If a page ends with a table or figure, do not leave any space after the figure caption or after the table itself. Apart from these special conditions, leave 2x1.2 lines before the table title, 1.2 line after table title (between title and table), and 1.2 lines after the table itself. Similarly, leave 1.2 lines before the figure, 1.2 line of space before the figure caption (between caption and figure) and 2x1.2 lines after the figure caption before starting to the text.

If width of table or figure is larger than the distance between margins, rotate the table/figure by 90° counterclockwise and place it on a landscape page. In such cases, table title or figure caption must be placed parallel to the table/figure. However, pagination and margins will be the same as on the other pages.

Figures should not be divided to and continued on multiple pages. However, as a Table is divided into two or more pages, each part of Table should have the same label, number and text in its title, but the title of the second and the latter parts should end with the expression “(cont.)” to indicate continuation.

If a Figure contains sub-figures, each sub-figure must be marked with a lowercase letter in parenthesis starting with “(a)”. There is to be a single caption for the whole Figure within which each sub-figure is explicitly referred to and explained (such as “**Figure 4.2. (a) The first part of figure, (b) the second part of figure, (c) the third part of figure.**”).

If a Table or a Figure is cited in the text, the citation should include the label and the number with the first letter of the label capitalized (such as “**Table 2.3**” or “**Figure 4.2**”. No period is placed after the number since citation is within the sentence. A sub-figure may be directly cited by indicating its label, number and sequence (such as “**Figure 2.5a**” or “**Figure 4.5a and c**”).

Figures and photographs can be prepared in color as long as duplicate copies are all produced by color laser printing. Photographic illustrations must be originals or well-made photographic copies of the originals. Standard photocopies of photographs are not acceptable. No background color should be used in tables. No color will be used in titles and captions. All axes of graphs must have readable titles and numbers to indicate the limits of variables.

2.11. Mathematical Expressions

Chemical formula and mathematical equations consist of special text that a special equation editor must be used to present the correct expression. Times New Roman 12 points font must be used to write formula and equations. An empty 1.2 lines of text must be used before and after it. They must be indented 1 cm from the left margin. Numbering of formula and equations will be carried out consecutively starting from 1 in each chapter. Its number is expressed in a parenthesis () with chapter number first and a period, then number of formula/equation, no period at the end. For example; the first equation of chapter 2 has number as (2.1), which must be placed as right justified. If there is a citation in the text for a formula or an equation, the number of formula/equation must be indicated. Do not show formula and equations in a box or in a frame.

2.12. Quotations

Quotations should be written in single spaced with 10 points Times New Roman. Short, direct prose quotations of three lines or less should be incorporated into the text, enclosed in double quotation marks (“xxx”). Prose quotations which exceed three lines should be separated from the text in single spacing and indented in its entirety at least 1 cm from the left margin, with no quotation marks at the beginning or end. The quotation must be differentiated from the text by indentation of the entire block and 1.2 lines of spacing above and below should be used.

2.13. Citations and Referencing: Mendeley Reference System

Mendeley Reference Manager is extensively used in research and science to organize references in thesis, manuscripts and books around World Institutions. Universities are officially holding the licence of Mendeley Reference Manager. Our University library has also official access to Mendeley program at: <http://library.mu.edu.tr/tr-TR/ReferansYonetimAraclari/Mendeley>. All academic people have a right to download Mendeley Desktop in their computer by using his/her university e-mail address. Organization of references in thesis will be carried out by using the official Mendeley Reference Manager. For this reason, download Mendeley Reference Manager to your computer by clicking www.mendeley.com Elsevier web site. Install Mendeley Desktop program to your computer and get registered for yourself through Institutional Registration by selecting “Mugla Sıtkı Kocman University“. After installation of Mendeley, you can double click on Mendeley Reference Manager on your desktop, select “**Access Through Mugla Sıtkı Kocman University**“. This will direct you to web page of our library to start official Mendeley Reference Manager program, where you are asked to enter **your user ID** of University e-mail account as well as **your password**. Once you are in Mendeley Reference Manager program, you need to install MS Word utility program. In **Tools**, click to “**Install Mendeley Cite for Microsoft Word**“. This will add Mendeley utility in your MS Word program. Next, in **Tools**, click “**Install Mendeley Web Importer**“, which will install “**Mendeley Web Importer**” to your Mendeley Reference Manager program. Now, you can start to enter your references one by one either manually or by searching from the internet. For this reason, in your Mendeley Reference Manager, under **Tools**, click on “**Search for Article Online**“. You can find your reference article on the web and you can copy it to your **Mendeley Library** that you will use for your thesis. You can add references to your Mendeley Library at any time as you write your thesis. Once you organized all reference materials in your Mendeley Reference Manager, you can access them from anywhere around the world. You can use them later to write manuscripts from your thesis as well.

References or Bibliography is a selected list of all books, articles, and other source material related to the thesis research. All of them must be cited in the text in proper place and finally must be listed or organized at the end of thesis. To cite a source material as you write your thesis in MS Word, bring the cursor where you want to insert reference material or more than one references, click on “**Başvurular**“, then you will see “Mendeley Cite “ on upper right bar of MS Word. Click on “**Mendeley Cite** “. Your Mendeley Library in which your recorded references appear as a list in the right window. Select the one you will cite in that part of text. At the bottom, “**Insert 1 citation**“ pops-up. As you click on it, your reference will be added to your text. You can select more than one reference in that part of text, at the bottom you will see the number of selected references. Finally, click “**Insert X citations** “that will add X number of citations in your text.

In order to organize references, there are several referencing styles used in the science and engineering fields. Many journals use the same, some use different referencing styles. In the thesis of the Graduate School of Natural and Applied Sciences of Muğla Sıtkı Koçman University, **American Psychological Association (APA), 7th edition** or **IEEE** citation styles will be used. For this reason, before starting to write your thesis in MS Word with **Mendeley Cite** utility installed, you adjust “**Citation Style**” as either **APA** or **IEEE**. Then your references in text will be organized according to the citation style you selected. Finally, when you finish writing your thesis, at the end of text where you want to insert list of references, your references will be listed by **Mendeley Cite**. For this purpose, open **Mendeley Cite** in your thesis file in MS Word, which will appear on the right side of MS

Word, click “**More**“, you will see “**Insert Bibliography**“, click on it. Your references will be listed on the page where your cursor is. Then you are done with references. Your reference will be listed under the title of **REFERENCES** centered on page between the margins. Therefore, references will be on a new page.

2.14. Other Illustrative Materials

Embedding of other illustrative materials such as photographs, pictures, drawings, audio-visual materials, large size materials, etc. in thesis requires special care. They will be labeled as either a **Table** or a **Figure** in thesis as explained in **2.10. Tables and Figures** and placed in a single line frame centered between the margins. Wherever required, mounting of such illustrations should be done with a technique that ensures durable and good quality result (e.g., **dry mounting**). With dry mounting, the paper to which photographs are attached will not curl. Other methods, such as library paste, rubber cement, spray mounting, or double sided tapes, are not acceptable. Such mounting techniques are not permanent, and the adhesives used will eventually destroy both the paper and the photograph in the long run.

If an audio-visual material is needed to accompany and supplement the text, electronic audio/video files must be copied in a CD and be adequately described within the content of the text. Such material will be submitted in the envelope physically mounted on the inner side of back cover of all copies of thesis.

If there are oversized illustrative materials such as large size photographs, pictures, drawings, maps, etc. in thesis, these oversized materials can be embedded in thesis in one of the following three ways: **First**, if the caption and visual exceeds the page size within the margins, in this case the caption may be placed on a separate page, facing the illustration. As a result, it will be the right margin of a facing page, **not the left**, that must be at least 3 cm for binding purposes. Margins for the facing page must be re-adjusted carefully. If an oversized illustration is rotated and the caption appears on a facing page must also be rotated. **Second**, an oversized illustration may be photo-reduced without having any loss in its quality, but its page number and caption must be the same size and font as in the rest of the illustrations. **Third**, an oversized illustration may be folded and inserted in a white or manila envelope no larger than 14cm x 22cm, which may be mounted on the inner side of back cover of thesis. Each page enclosed in the envelope must be included in the pagination of the thesis.

2.15. Paper Quality

All copies of the final version of thesis must be on good quality white acid-free paper, of at least 80 g, A4 in size (measuring 210 by 297 mm) to insure durability, permanency, and opacity. Exceptions are allowed in the quality and weight of paper for the final copy only in the case of photographic plates and pocket materials.

2.16. Printing and Reproduction

All theses must be printed using laser printers. All print must be in permanent black ink and must appear on only one side of each page. Photocopied thesis do not mostly provide the same quality of laser prints that photocopied thesis will not be accepted.

2.17. Footnotes and Endnotes

There are two different notes used in thesis; footnotes, placed at the bottom of each page, and endnotes, placed at the end of each chapter or at the end of the thesis before the

bibliography. Footnotes should be used only if absolutely necessary. Footnote references must be indicated in the text by an Arabic number placed superior to the text and immediately following the word, phrase or sentence which the footnote concerns. Footnotes must be numbered consecutively for each page and for the entire thesis. Footnotes will be placed at the bottom of the page on which they are indicated. They must be indented from the left margin of the text by 1 cm and placed under a broken line made of 20 characters (5 cm). Footnotes must be single-spaced and must be written with 10 points of Times New Roman.

CHAPTER 3

GUIDELINES FOR THE FRONT AND THE BACK SECTIONS

There are special pages of thesis at the front section as well as back side of thesis. Their preparation and properties are explained in detail in this chapter.

3.1. The Front Section Pages

Front section of thesis contains several important pages that are introductory pages before the text starts. These are title page, approval page, declaration page, abstract page, özet page, acknowledgement page, table of contents page, list of tables page, list of figures page, list of symbols page, acronyms/abbreviations page. Guidelines for each page are explained in this section.

3.1.1. Title Page (Front Cover) and Spine

Title page on the cover must be written using 16 points Times New Roman **bald face** with 1.2 lines of space and centered between the margins as presented in Appendix A.1 and Appendix A. 2. Long titles can be divided into more lines and word division at the end of line is not allowed. Title must not include any chemical formula and/or mathematical equations, special symbols or acronyms. On the spine, all writings will be capitalized, starting from the first letter of author's first names (if more than one), separated by period (.), last name, name of department, name of type of thesis (master of science or doctor of philosophy), publication place (MUGLA), and date as month and year.

3.1.2. Title Page (Inside the Cover Page)

Title page inside the cover is the first page of the thesis (it is counted by "i" but the number will not be written on it). The format of the title page is the same as that on the cover, including spacing and capitalization, must be exactly as in the sample title page given in Appendix B. 1 and Appendix B. 2.

3.1.3. Approval Page

The text on the approval page must be written using 12 points Times New Roman, single space and **6nk** space between the paragraphs. All copies of the thesis submitted to the Graduate School of Natural and Applied Sciences must include original signatures of the Examining Committee on the approval page. The page number of approval page is "ii", but it is not shown on the page. Sample of approval pages are provided in Appendix C.1, C.2, and C.3. It is strongly recommended that the approval page of the thesis be signed in blue ink by the Examining Committee. If there is a co-advisor in thesis, signature of co-advisor must be also present on the approval page. Approval page is not shown in Table of Contents.

3.1.4. Dedication Page

Occasionally, authors would like to dedicate their thesis to their family members, friends or some scientists in their area of research. There is no heading for dedication page, but it must be numbered with lower case Roman numbers as "iii". If used, the dedication must be brief and centered on the page between margins. It is written by using 12 points

Times New Roman with a single space. Dedication page is not listed in Table of Contents. A sample of dedication page is presented in Appendix D.

3.1.2. Declaration Page

On the declaration page, the author of thesis declares that the results, conclusions, data, knowledge, theory, methods, etc., obtained and presented in the thesis were original and obtained through the thesis study by herself/himself. S/he also affirms that s/he obeyed the rules of scientific research and publication ethics as strongly enforced by the Higher Education Council of Türkiye (YÖK) and published as "Araştırma ve Yayın Etiği Yönergesi- Regulations of Scientific Research and Publication Ethics" and summarized in this Thesis Guide. The text of declaration page must be written using 12 points Times New Roman with 1.0 line of space as a single paragraph. There is no heading of declaration page. But its page number will be lower case Roman number "iv" and shown on the page. However, Declaration page is not listed in Table of Contents. A sample of declaration page is given in Appendix E.

3.1.6. Acknowledgement Page

Acknowledgement page is written to thank to thesis advisor and other people who contributed to the preparation of the thesis, to academic people who have contribution in education and research studies of the graduate student as well as to the organizations providing financial support through the projects and/or scholarships/ assistantships. The Project numbers (or grant numbers) must be indicated specifically. Student must also thank to Muğla Sıtkı Koçman University and its resarch units for any type of academic, financial, and infrastructure support of University. Student can also thank to his/her family members at the end of Acknowledgements. Acknowledgements to the social friends and pets of the author is not appropriate in academic theses and should be ignored. Acknowledgement page is listed in Table of Contents. Its page number is "v" and shown on the page. Its title is **ACKNOWLEDGEMENTS** and written as the first level heading centered at the top of page between the margins. This page is written with 12 poits Times New Roman and 1.2 lines of space. A sample of Acknowledgement page is given in Appendix F.

3.1.7. Abstract Page (for Thesis in English language)

The Abstract page is a summary of the thesis in English language for thesis prepared in English language. Abstract should briefly describe the thesis work including its objectives, methods, results and conclusions. Abstract in English language must be written according to the Abstract Writing Rules of TUBITAK as given in Appendix G. It should not contain any headings, tabular material, chemical formulae, equations, footnotes or references. Abstract should be at most one page long. Its title "**ABSTRACT**" is the fist level heading and must be written using 14 points Times New Roman bold face centered on the top of page between the margins. The text must be written using 12 points Times New Roman with 1.0 line of space and an empty space 6nk between paragraphs if there is more than one. At the bottom of abstract page, at leas five different keywords of thesis, first letter capitalized, must be indicated on the last lines. Abstract will be listed in Table of Contents with its page number. A sample of abstract page is presented in Appendix H.

3.1.8. Özet Page (Abstract in Turkish language)

Özet page is a summary of thesis in Turkish language for thesis prepared in English language. Abstract in Turkish language must be written according to the Abstract Writing

Rules of TUBITAK as given in Appendix G. The title of özet page is “**ÖZET** “as the first level heading formatted as **bold face** with 14 points of Times New Roman placed at the top of özet page centered between the margins. The rules of özet page is the same as that of abstract page as explained above. Özet page is listed in Table of Contents with its page number.

3.1.9. Table of Contents Page

The table of contents page must list the title of each chapter and its parts and sections, references or bibliography and appendices. The wording used for all entries in the table of contents must match exactly with what is used in the text. Heading for the table of contents page is “**TABLE OF CONTENTS** “as the first level heading and it must be written using 14 points bald face Times New Roman centered at the top of page between the margins. The text on the page must be written by 12 points Times New Roman with 1.0 line of space. Headings must be written left justified and corresponding page number for each heading/sub-heading must be indicated right justified connecting by leader dots. A sample of Table of Contents is given in Appendix J or table of content of this Guide can be used as a reference.

3.1.10. List of Figures Page

This page lists all the figures given throughout the thesis, if any, including with the caption, number and page number. The heading of this page is “**LIST OF FIGURES** “ written by 14 points **bold face** Times New Roman centered at the top of page centered between the margins. The figures are listed on this page starting from 1.2 line of space below the heading. The text on the list of figures page must be written left justified by 12 points Times New Roman using 1.0 line of space. The second and other lines of figure caption will be written 1.75 cm indented from the left margin. The figure name, number and its caption listed on this page must be exactly the same as used in the text, including its page number. List of Figures page is listed in Table of Contents. A sample of List of Figures is presented in Appendix K.

3.1.11. List of Tables Page

This page lists all the tables given throughout the thesis, if any, including with the title, number and page number. The heading of this page is “**LIST OF TABLES** “ written by 14 points **bold face** Times New Roman centered at the top of page centered between the margins. The tables are listed on this page starting from 1.2 line of space below the heading. The text on the list of tables page must be written left justified by 12 points Times New Roman using 1.0 line of space. The second and other lines of table title will be written 1.75 cm indented from the left margin. The table name, number and its title listed on this page must be exactly the same as used in the text, including its page number written right justified by leader dots. List of Tables page is listed in Table of Contents A sample of List of Tables is given in Appendix L.

3.1.12. List of Symbols Page

If there different symbols used in thesis, written with fonts different from Tmes New Roman fonts, those Latin symbols, Greek letters or other symbols must be listed on this page. The heading of this page is “**LIST OF SYMBOLS** “placed at the top of page centered between the margins and written by 14 points bald face Times New Roman. The symbols are written left justified following a double colon and its definition follows right after leaving

a space with 12 points Times New Roman using 1.0 line of space. It is generally a common practice to follow the same nomenclature used for the symbols in the research area of the thesis author. List of Symbols page is listed in Table of Contents A sample of List of Symbols page is shown in Appendix M.

3.1.13. List of Acronyms/Abbreviations

If there are different acronyms/abbreviations used in thesis, they must be listed on this page. The heading of this page is “**LIST OF ACRONYMS/ ABBREVIATIONS**” placed at the top of page centered between the margins and written by 14 points bold face Times New Roman. The acronyms/abbreviations are written left justified following a double colon and its definition follows right after leaving a space, with 12 points Times New Roman using 1.0 line of space. It is generally a common practice to follow the same nomenclature used for the symbols in the research area of the thesis author. A sample of List of Acronyms/Abbreviations page is shown in Appendix N.

3.2. The Back Section Pages

The last part of thesis involves some special pages that require special formatting such as **References** or **Bibliography**, **Appendices** and **Curriculum Vitae** (for Ph.D. theses).

3.2.1. References / Bibliography Page

References related to thesis are cited in the related part of text as explained in detail in section 2.13. **Citations and Referencing: Mendeley Reference System.** Mendeley Reference Manager System is extensively used by journals, Institutions, Universities in the fields of sciences and engineering. Once thesis writing is finalized, start to a new page and insert the heading “**REFERENCES**” or “**BIBLIOGRAPHY**” on top of the page centered between the margins with 14 points **bold face** Times New Roman. Leave a 1.2 lines of space after the heading and bring the cursor to the left as full justification needed. Activate **Mendeley Cite**, which will pop-up as a window on the right side of thesis file. Click on “**More**” and you will see “**Insert Bibliography**” option. Please click on “**Insert Bibliography**”. Then, **Mendeley Cite** will organize your references inserted throughout the text by using the Mendeley Cite in either **APA** or **IEEE** format as a list of references or bibliography. Now your references page is created by a great accuracy in one of universal format. **REFERENCES** or **BIBLIOGRAPHY** page is listed in Table of Contents.

3.2.2. Appendices

A thesis may present supporting data in the form of one or more Appendices. Examples of Appendix material include data sheets, questionnaire samples, flowcharts, illustrations, maps, derivation of long equations, long analysis, computer software developed during thesis, charts, etc. If the appended data need to include oversized illustrations or maps, rules explained in section 2.14. **Oversized Materials** should be followed.

If a Table, Figure, Equation etc., is to be included in an Appendix, the numbering should follow the same rules used within the main body of the thesis. The numbering continues after the last page of References. Each Appendix should have a descriptive title, as should all Main Headings. Software/computer programs developed in the thesis should be submitted on a separate CD if it has many pages. Otherwise, several pages of computer programs must be presented as printed text in the appendix.

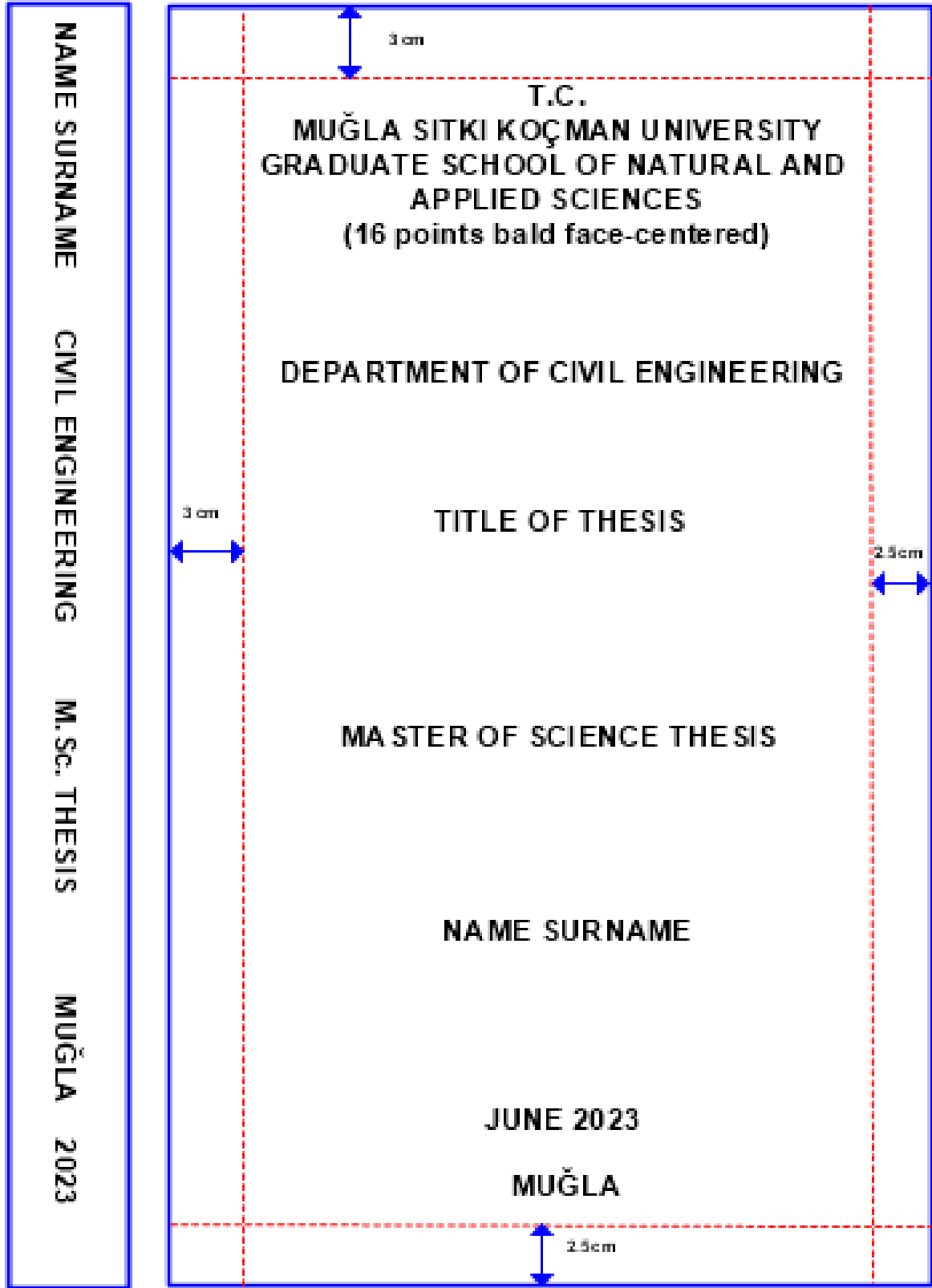
Labeling of appendices should be done alphabetically as Appendix A, Appendix B, Appendix C, etc., and listed under **APPENDICES** in **TABLE OF CONTENTS** page. Each appendix must start from a new page. There is no chapter number for Appendices. Title of appendices is “**APPENDICES**” written using 14 points bold face Times New Roman as centered at the top of page centered between the margins. The text in each appendix must be written by 12 points Times new Roman with 1.0 line of space and 1.2 line of space between paragraphs.

3.2.3. Curriculum Vitae

The curriculum vitae or the vita in short is required only for doctor of philosophy (Ph.D.) theses. It is a professional biography of the candidate which includes date and place of birth, educational institutions attended (after high school, university degrees, master of science degrees, names of universities, departments), degrees and honors won, titles of publications listed, oral and poster presentations listed, computer softwares experienced and teaching and professional experience. It should be short, concise, and written in the third person. There is no chapter name and number for the curriculum vitae, but it must have page numbers and not included in the Table of Contents. The text in vita must be written using 12 point Times New Roman as a single space and 1.2 lines of space between paragraphs. The heading of the curriculum vitae is “**CURRICULUM VITAE**” centered at the top of page between the margins and written by 14 points bold face Times New Roman. A sample of Curriculum Vitae is provided in Appendix M.

APPENDICES

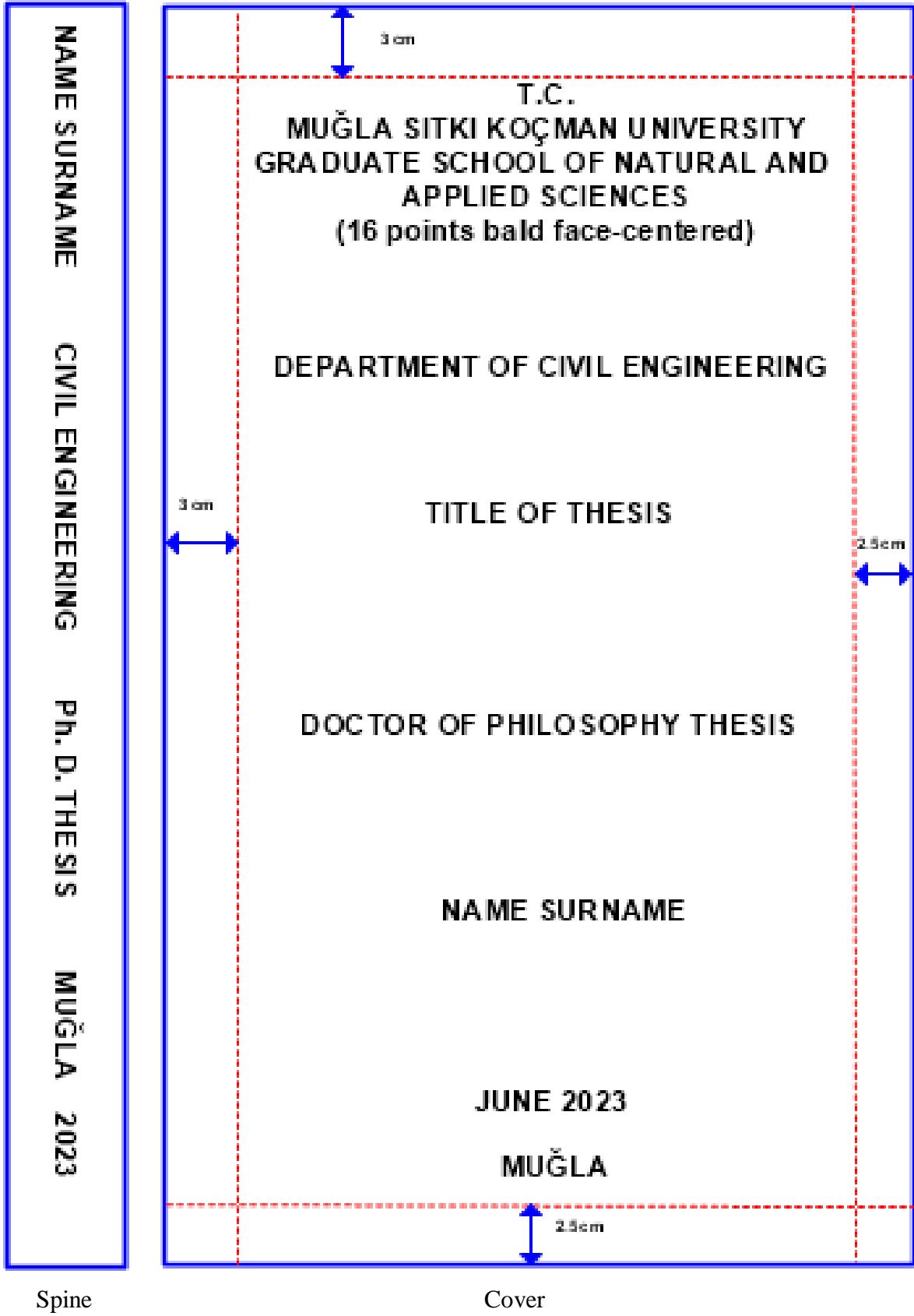
Appendix A.1. A. Sample of Title Page (Cover) and Spine (M.Sc.)



Spine

Cover

Appendix A.2. A Sample of Title Page(Cover) and Spine (Ph.D.)



Appendix B.1. A. Sample of Title Page (Inside Cover) (M.Sc.)

The diagram shows a rectangular title page layout with a blue border and a red dashed inner border. The text is centered within the red dashed border. Dimensions are indicated by blue double-headed arrows: 3 cm from the top border to the top of the red dashed border, 3 cm from the left border to the left of the red dashed border, 2.5 cm from the right border to the right of the red dashed border, and 2.5 cm from the bottom border to the bottom of the red dashed border.

T.C.
MUĞLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND
APPLIED SCIENCES
(16 points bold face-centered)

DEPARTMENT OF CIVIL ENGINEERING

TITLE OF THESIS

MA STER OF SCIENCE THESIS

NAME SURNAME

JUNE 2023

MUĞLA

The diagram shows a title page layout with a blue border and a red dashed inner border. The text is centered within the red dashed border. Dimensions are indicated by blue arrows: 3 cm from the top border to the top of the red dashed border, 3 cm from the left border to the left of the red dashed border, 2.5 cm from the right border to the right of the red dashed border, and 2.5 cm from the bottom border to the bottom of the red dashed border.

T.C.
MUĞLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND
APPLIED SCIENCES
(16 points bold face-centered)

DEPARTMENT OF CIVIL ENGINEERING

TITLE OF THESIS

DOCTOR OF PHILOSOPHY THESIS

NAME SURNAME

JUNE 2023

MUĞLA

Appendix C.1. A Sample of Approval Page (M. Sc.-3 jury members)

**MUGLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**

THESIS APPROVAL

A thesis titled asprepared by **Name SURNAME** in the Department ofwas examined by the Examining Committee Members on the date .../.../..202...and approved as unanimously / overall majority in partial fulfillment of requirements for the degree of Master of Science..

EXAMINING COMMITTEE MEMBERS

Prof. G**** Y**** (**Chair**)

Signature:

Department of *****,
Muğla Sıtkı Koçman University, Muğla

Assoc. Prof. M***** C*** (**Thesis Advisor**)

Signature:

Department of *****,
Muğla Sıtkı Koçman University, Muğla

Prof. A*** K** (**jury member**)

Signature:

Department of *****,
Ankara University, Ankara

DEPARTMENTAL APPROVAL

Prof. A***** D*****

Signature:

Head, Department of *****,
Muğla Sıtkı Koçman University, Muğla

Assoc. Prof. M***** C**

Signature:

Department of *****, (Thesis Advisor),
Muğla Sıtkı Koçman University, Muğla

Asst. Prof. C***** Ç*****

Signature:

Department of *****, (Co-Advisor)
Muğla Sıtkı Koçman University, Muğla

(If there is, s/he signs; erase otherwise)

Appendix C.2. A Sample of Approval Page- (M. Sc.-5 jury members)

**MUGLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
THESIS APPROVAL**

A thesis titled asprepared by **Name SURNAME** in the Department ofwas examined by the Examining Committee Members on the date .../.../..202...and approved as unanimously / overall majority in partial fulfillment of requirements for the degree of Master of Science.

EXAMINING COMMITTEE MEMBERS

Prof. G**** Y**** (**Chair**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Assoc.Prof. M***** C****(**Thesis Advisor**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Prof. A*** K** (**jury member**)

Signature:

Department of XXXXXX,
Ankara University, Ankara

Asst. Prof. M***** B***** (**jury member**)

Signature:

Department of XXXXXX
İstanbul Technical University, İstanbul

Prof. O***** Ö***** (**jury member**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

DEPARTMENTAL APPROVAL

Prof. A**** D****

Signature:

Head, Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Assoc.Prof. M**** C*****

Signature:

Department of XXXXXX (Thesis Advisor),
Muğla Sıtkı Koçman University, Muğla

Asst. Prof. C***** Ç*****

Signature:

Department of XXXXXX (Co-Advisor)
Muğla Sıtkı Koçman University, Muğla

(If there is, s/he signs; erase otherwise)

Appendix C.3. A Sample of Approval Page (Ph.D.)
MUGLA SITKI KOÇMAN UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
THESIS APPROVAL

A thesis titled asprepared by **Name SURNAME** in the Department ofwas examined by the Examining Committee Members on the date .../.../..202...and approved as unanimously / overall majority in partial fulfillment of requirements for the degree of Doctor of Philosophy.

EXAMINING COMMITTEE MEMBERS

Prof. G**** Y***** (**Chair**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Assoc.Prof. M***** C** (**Thesis Advisor**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Prof. A*** K** (**jury member**)

Signature:

Department of XXXXXX,
Ankara University, Ankara

Asst. Prof. M***** B***** (**jury member**)

Signature:

Department of XXXXXX,
İstanbul Technical University, İstanbul

Prof. O***** Ö***** (**jury member**)

Signature:

Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

DEPARTMENTAL APPROVAL

Prof. A***** D*****

Signature:

Head, Department of XXXXXX,
Muğla Sıtkı Koçman University, Muğla

Assoc. Prof. M***** C****

Signature:

Department of XXXXXX (Thesis Advisor),
Muğla Sıtkı Koçman University, Muğla

Asst. Prof. Üyesi C***** Ç*****

Signature:

Department of XXXXXX (Co-Advisor)
Muğla Sıtkı Koçman University, Muğla

(If there is, s/he signs; erase otherwise)

Appendix D. Sample of Dedication Page

This thesis is dedicated to Prof.H**** Ç*****

Or

To My Parents

Appendix E. Sample of Declaration Page

As the author of thesis, I declare that the results, conclusions, data, knowledge, theory, methods, etc., obtained and presented in this thesis were original and obtained through the thesis study by myself. I also affirm that I obeyed the rules of scientific research and publication ethics of the Higher Education Council of Türkiye (YÖK) published as "**Araştırma ve Yayın Etiği Yönergesi**- Regulations of Scientific Research and Publication Ethics".

Name Surname
Day/month/year
signature

Appendix F. A Sample of ACKNOWLEDGEMENT Page

ACKNOWLEDGEMENTS

I would like to express my deep gratitude to Prof. K***** Y*****, my thesis advisor, for his guidance, encouragement, and full-time assistance throughout this investigation. I would also like to thank to the other members of my doctoral committee, Prof. C***** G*****, Prof. A***** Ç*****, Assoc. Prof. M***** D*****, Prof. L***** K***** for their comments and criticisms.

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I wish to acknowledge to my parents, my sisters, my brothers, and my daughter D*****, for their understanding, encouragements, and constant support over the past years of my education.

Finally, and the most importantly, my special thanks and deepest appreciation go to my lovely wife, S*****. Without her tremendous support, understanding, help, her love, my goals and this journey would never have been accomplished.



TÜBİTAK

TÜRKİYE BİLİMSEL VE TEKNİK ARAŞTIRMA KURUMU

ÖZ

(ABSTRAKT)

HAZIRLAMA KILAVUZU

TÜRDOK

TÜRKİYE BİLİMSEL VE TEKNİK DOKÜMANTASYON MERKEZİ

Atatürk Bulvarı No. 221, Kavaklıdere-ANKARA

ÖZ (ABSTRAKT) HAZIRLAMA KILAVUZU

1. KILAVUZUN AMACI

Bu kılavuz, TÜBİTAK/TÜRDOK'un geliştirdiği Bilimsel ve Teknik Veri Tabanı için İngilizce ve bilgi veren öz (informative abstract) yazarken uyulması gereken kuralları belirlemek, ayrıca araştırmacılara ve yazarlara yayınlarına öz hazırlamada yardımcı olmak amacıyla hazırlanmıştır.

2. ÖZÜN TANIMI

Kılavuzda "öz" terimi, özü hazırlayanlar tarafından (yazar yada abstraktör) bir belgenin içeriğinin eleştiri ve yorum katılmadan bazı kurallara uyularak özetlenmesi anlamında kullanılmıştır.

3. ÖZÜN AMACI VE NİTELİĞİ

- Özün amacı, bir belgede işlenen konuların ana noktalarını ortaya çıkarmaktır.
- Özde, çalışmanın amacı, kapsamı, yöntemi, yapılan gözlemler, uygulamalar, bulgular, okuyucuya aslına inceleyp incelememe hususunda karar verdirebilecek açıklıkta yazılmalıdır.
- Öz, bilgisayar aracılığı ile yayın taraması yapılmasına olanak sağlayacak nitelikte olmalıdır.
- Aslının el altında bulunmadığı durumlarda, belgenin yerini tutacak derecede yeterli bilgi içermelidir.

4. ÖZÜN UZUNLUĞU

Öz, hazırlanan belgenin uzunluğuna bağlı olarak, en az 100, en fazla 250 sözcükten oluşmalıdır. Olağandışı hallerde 400 sözcüğe kadar çıkılabilir.

5. ÖZÜN YAPISI

Bilgi veren özde bulunması gereken ögeler şunlardır:

5.1. Amaç

Eserin başlığından açıkça anlaşılmadığı takdirde çalışmanın amacı ve kapsamı özde belirtilmelidir.

5.2. Yöntem ve Materyal

Çalışmada uygulanan temel yöntemler, yeni teknikler, yapılan işlemler ve kullanılan materyal özetlenmelidir.

Appendix G. Guide to prepare ÖZET and ABSTRACT-page 3

5.3. Bulgular

Çalışmada, ortaya konulan önemli bulgular özde mutlaka belirtilmelidir.

5.4. Sonuç

Çalışmanın amacı, yapılan öneriler, bulgular ve değerlendirmelerle bağlantılı olarak çıkarılan sonuçlar özde verilmelidir.

Bu ögelerin sırası genel olarak bir belgenin sunuluşundaki sıradır. Kullanıcıların gereksinimlerine göre, özde bu ögelerin sırası değişebilir. Yani önce sonuç, sonra bulgular, yöntem ve materyal kaydedilebilir.

6. ANLATIM BİÇİMİ

6.1. Paragraf ve Cümle Yapısı

Öz, genelde bir paragraftan oluşmalıdır. Ancak bir yayında farklı konular işlenmişse, birden fazla paragraf kullanılabilir. Cümleler kısa olmalı ve dilbilgisi kurallarına uymalıdır. Akıcılık ve okunabilirliğe dikkat edilmelidir. (İngilizce'de yaklaşık 12 sözcükten oluşan cümleler, rahatlıkla anlaşılabilir).

Cümleler tam olmalıdır. Devrik yada telgraf ifadesine kaçan cümlelerden kaçınılmalıdır. Fiilli ifadeler, yan cümleler, a, an, the gibi harfi tarifler atlanmamalıdır.

Kullanılan sözcüklerin yazılan kapsamda açık olmayan anlamlara sahip olup olmadıkları denetlenmelidir.

Kullanılan terimlerin kısaltmalarının yaratabileceği çelişkiler düşünülürken esas alınacak kıstas ise, okurların uzmanlaşma düzeyleri olmalıdır. Bu bakımdan kısaltmalarda, meslek jargonunu içeren sözcükleri, ticari isimleri kullanırken aşırıya kaçılmamalıdır.

Aksine neden olmadıkça yazarın fikirlerinin sırası korunmalıdır. Özün temel amacı orjinal belgeyi yansıtmasıdır.

Tarihçe, konunun nereden çıktığı iyi bilinen tekniklerin, süreçlerin, varsayımların, aksiyonların ve araçların açıklamaları öz bünyesine alınmamalıdır.

Öz, yeni kuramlar, hipotezler, sonuçlar ve yorumlar üzerinde yoğunlaştırılmıdır. Sayısal verilerden bahsederken gerektiğinde hata payları da belirtilmelidir. Standartlaştırılmış testler, teknikler ve araçlar, tam isimleriyle verilmelidir.

6.2. Giriş Cümlesi

Özün giriş cümlesi, eser adının tekrarı olmamalı ve mümkün olduğunca anlama katkısı bulunmayan, aşağıdaki ibarelerle başlamamalıdır:

"This research work....."

"Bu tezin amacı"

"This article is a report on...."

"Bu araştırmamın amacı....."

"This paper takes a brief look at ..."

"Araştırmalarımıza göre....."

Appendix G. Guide to prepare ÖZET and ABSTRACT-page 4

"The authors studied...."

"Yaptığımız incelemeler sonucu...."

"It is the authors belief that..."

İyi bir giriş cümlesi, belgenin konusunu özetlemelidir.

Örnekler:

- Mackintosh Dam is a concrete decked rockfill dam of 75 m height and 470 m crest length, containing 926,670m³ of quarried rock.*
- Quality Control Circles (QCC) have become a popular remedy to productivity problems.*
- Coal use is expected to increase substantially in many parts of the world during the next few decades.*
- Leakage is a major problem with every form of fluid power.*
- The passenger car of the future will have to meet the demands for less energy consumption, lower-exhaust gas emissions, lower noise levels, more safety for occupants and other traffic-mix constituents.*
- In a world suffering from inflation and fossil-fuel depletion, hydropower offers stable prices and permanence.*

6.3. Fiil Zamanları

Değişik bir zamanda anlatma zorunluluğu olmadıkça bütün fiillerde aynı zaman kullanılmalıdır.

- Bir işlemi anlatırken geçmiş zaman,*

Örnek:

"The mixture was distilled".

- Çalışmayı özetlerken, grafik ve şekilleri anlatırken geniş zaman,*

Örnek:

"The rate of catalysis increases with the temperature".

- Analitik işlemlerle ilgili direktifler için emir kipi kullanılmalıdır.*

Örnek:

"Dissolve with aqua regia and then evaporate the solution"

6.4. Etken, Edilgen Fiiller ve Üçüncü Şahıs

Açık, kısa bir anlatım sağlamak için etken fiil kullanılmalıdır. Bununla birlikte cümlenin vurgulamak istendiği durumlarda edilgen fiil kullanılabilir.

Örnek:

- "Iron-containing bauxites sweeten gasolines in the presence of the air"*
- "The relative adsorption coefficients of ether, water, and acetylene were measured by...."*

Anlamda karışıklık yaratmadıkça üçüncü şahıs kullanımı tercih edilmelidir.

6.5. Terminoloji

Bilgisayarla yapılacak yayın taramalarında özlerden de yararlanılacağından, çalışmada geçen teknik terimler ve anahtar sözcükler özde mutlaka kullanılmalıdır. İlgili bilim dalında ilk kez kullanılan terimler, tanımı ile birlikte verilmelidir.

6.6. Kısaltmalar

Kısaltma, kısaltılmış ad, sembol ve ölçü birimleri için uluslararası standartlar uygulanmalı, özel isimler kısaltılmamalıdır.

6.7. Yazım Kuralları

İngilizce yazım kuralları için "Webster's" sözlüklerinden, Türkçe yazım kuralları için "Yazım Kılavuzu"ndan yararlanılmalıdır.

ÖZ ÇIKARMA SÜRECİ HAKKINDA BAZI GENEL TAVSİYELER

Öz çıkartma işlemini yaparken aşağıda belirtilen aşamalara dikkat edilmesi önerilir.

Belgeyi, içeriğini ve amacını nasıl açıklayacağınızı düşünerek okuyunuz. Bu arada başka kaynaklardan da yararlanmanız gerekiyorsa, bundan kaçınmayınız. Öz çıkartan kişi, riskli, kısa yollara sapmamaya özen göstermelidir. Özde kullanılacak bilgilerin çoğu belgenin ilerlemiş paragraflarında yer alır. Sonuçlar, yorumlar, öneriler, tartışmalar gibi kısımların özetleri, özde yer almaya daha fazla adaydır. Giriş paragrafları ise daha ziyade öz çıkartan için, onu nasıl çıkartacağı konusunda faydalı olur.

Belgeyi incelerken önemli noktalarını not aldığınız takdirde, özü yazmaya başladığınızda kendi kendinize kolaylık sağlamış olursunuz. Bu eylem, size özü hazırlarken vakit kazandıracaktır.

Öz, birkaç kez yazılmalıdır. İlk önce yazım stilini, ifade kısaltmalarını dikkate almayan bir ham öz hazırlanmalıdır. Sonra bu ham öz, doğru imla, iyi ifade, noktalama, bütünlük ve kısalık açısından denetlenip düzeltilmelidir. Bu arada, özel isimler, kimyasal ve matematiksel formüller gibi saklı hataların çokça bulunduğu yerler dikkatle incelenmelidir.

Daha sonra ise, düzeltilmiş ham öze, bu kez stil açısından da gözden geçirmek suretiyle son şekli verilmelidir.

Not: Dilin yapısından kaynaklanan özellikler dışında, bu kılavuz Türkçe özetler için de geçerlidir.

Appendix H. Sample of ABSTRACT Page

ABSTRACT

TITLE OF THESIS

Name and Surname

Master of Science / PhD

Graduate School of Natural and Applied Sciences

Department

Supervisor: Prof. / Assoc. /Asst Prof. Name Surname

Month Year, xxx pages

Hydrogenated amorphous silicon-germanium alloy thin films (a-SiGe:H) of various germanium concentrations, are potential candidates meeting the requirements of high efficiency stacked solar cells and optoelectronic devices where a certain bandgap is necessary. In this thesis to obtain reliable information about the native and light induced defect states present in a-SiGe:H alloy thin films of various germanium concentrations SSPC, DBP, transmission spectroscopy and PDS techniques have been used. A procedure based on Ritter Weiser optical formulation has been applied to calculate fringe free absorption coefficient spectra of a-SiGe:H alloy thin films of various Ge% from the yield DBP and simultaneously measured transmission signals for the first time. The results have been compared with those independently measured by PDS method.

In the annealed state the effects of native defect states in a-SiGe:H alloy thin films of various Ge% have been investigated. For the a-SiGe:H alloy films with Ge concentration in the range of 10% to 30%, $\eta_n\tau_n$ -products for the photogenerated free electrons is the highest, therefore they serve as the best photoconductive absorber layer in the multijunction solar cells. The effect of Ge content in amorphous silicon network clearly indicates a systematic decrease in the bandgap with increasing Ge content. The E_{ov} values are almost constant around 55meV for alloying up to 40% Ge. Finally the changes in the defect density present in the bandgap of alloy films are inferred from the $\alpha(1.0eV)$ measured by both PDS and low bias light DBP spectrum. The difference between PDS and low bias DBP spectra is attributed to the underlying physics of these methods. The best film with lowest defect density can be prepared with alloying Ge in the range from 10% to 40% Ge.

In the light soaked state, samples were left under white light illumination (15 suns) for determined time intervals. SSPC measurements indicate that all samples exhibit certain degree of degradation in the magnitude of σ_{ph} and $\eta\mu_n\tau_n$ products. The rate of $\alpha(1.0 eV)$ decreases as Ge% increases in the light soaked state. Higher Ge content films (50%, 75%) show almost no degradation in sub-bandgap absorption. As the degradation slope of $\alpha(h\nu)$ and $1/\eta\mu_n\tau_n$ product are not same for all samples it can be inferred that subgap absorption and photoconductivity measurements are not controlled by the same set of defects present in the bandgap.

Keywords: Photoconductivity, Amorphous silicon-germanium alloy films, Optic spectroscopy, Defects.

Appendix I. Sample of ÖZET Page

ÖZET TEZ BAŞLIĞI

Adı Soyadı

Yüksek Lisans/Doktora

Fen Bilimleri Enstitüsü

...Anabilim Dalı

Tez Danışmanı: Prof. Dr./Doç. Dr./ Dr.Öğrt. Üyesi Adı Soyadı

Ay Yıl, xxx sayfa

Farklı germanyum konsantrasyonlarına sahip hidrojenlendirilmiş amorf silisyum germanium alaşım ince filmler (a-SiGe: H) yüksek verimli ve çok katmanlardan oluşan güneş pilleri ve farklı yasak enerji aralığına sahip yarıiletkenlerden imal edilen optik ve elektronik uygulamalar için önemli bir potansiyel oluşturur. Bu tezde farklı germanyum konsantrasyonlarına sahip a-SiGe:H alaşım ince filmlerde doğal ve ışık altında bozunuma uğratılma sonucu oluşan elektronik kusurlar hakkında doğru ve güvenilir bilgi edinmek amacıyla kararlı durum fotoiletkenlik (SSPC), iki demetli fotoiletkenlik (DBP), ve ışıl ışın saptırma spektroskopisi (PDS) yöntemleri kullanılmıştır. İki demetli fotoiletkenlik (DBP) methodundan girişim saçaksız mutlak soğurma katsayısı spektrumun elde edilebilmesi için Ritter-Weiser optik denklemleri kullanılan bir analiz yöntemi, literatürde ilk kez a-SiGe:H alaşım ince filmlere uygulanmıştır. Elde edilen mutlak optik soğurma katsayısı bulguları bağımsız olarak PDS spektroskopisinden elde edilen optik soğurma katsayısı spektrumları ile karşılaştırılmıştır. Yüksek enerji bölgesinde mükemmel örtüşme elde edilmiştir.

Isıl işleme maruz bırakılmış malzemelerde doğal elektronik kusurlar incelenmiştir. Çok katmanlı güneş pillerinde en iyi fotoiletken soğurma katmanı olarak $\mu_n\tau_n$ -çarpanı en yüksek ölçülen germanyum konsantrasyonu 10% ile 30% aralığındaki a-SiGe:H malzemelerde bulunmuştur. Germanyum konsantrasyonu arttıkça yasak enerji aralığında sistematik bir azalma olduğu gözlenmiştir. Yasak enerji aralığındaki elektronik kusur yoğunluğundaki değişim PDS ve iki demetli fotoiletkenlik (DBP) metodları ile ölçülen $\alpha(1.0\text{eV})$ bulguları ile değerlendirilmiş ve arada oluşan fark iki metodun farklı fiziksel temellere dayanması ile açıklanmıştır. En düşük elektronik kusur yoğunluğuna sahip olan a-SiGe:H ince filmlerin 10% ile 40% germanyum konsantrasyonu aralığında hazırlanabileceği bulunmuştur.

Işık altında bozunuma uğratılmış a-SiGe:H ince filim malzemeler, belirli zaman aralıkları için 15 güneş şiddetindeki beyaz ışık kaynağı altında bekletilerek incelenmiştir. Kararlı-durum fotoiletkenlik ölçümleri tüm örneklerde fotoiletkenlik ve $\mu_n\tau_n$ -çarpanı değerlerinde bir azalmanın olduğunu göstermiştir. $\alpha(h\nu)$ optik soğurma katsayısındaki artış ve $1/\mu_n\tau_n$ -çarpanının zaman göre değişim eğimlerinin farklı olması fotoiletkenlik ve DBP ile elde edilen soğurma katsayısı bulgularının aynı tür elektronik kusurlar tarafından kontrol edilmediği ile açıklanabilir.

Anahtar kelimeler: Fotoiletkenlik, Amorf silisyum-germanyum, Optik spektroskopisi, Elektronik kusurlar.

Appendix J. A Sample of TABLE OF CONTENTS Page

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	v
ABSTRACT	vi
ÖZET (Abstract in TURKISH language)	vii
TABLE OF CONTENTS.....	viii
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF SYMBOLS	xiii
LIST OF ACRONYMS/ABBREVIATIONS.....	xiv
CHAPTER 1: INTRODUCTION	1
1.1. Second level heading1	1
1.2. Second level heading2.....	1
1.3. Second level heading3.....	2
1.4. Second level heading4	3
1.4.1.First level sub-heading1	4
1.4.2. First level sub-heading2	4
1.4.3. First level sub-heading3	5
1.2. Second level heading5.....	6
CHAPTER 2: THEORETICAL ANALYSIS	7
2.1. Second level heading1	1
2.2. Second level heading2.....	1
2.2.1. First level sub-heading1	9
2.2.2. First level sub-heading2	10
2.3. Second level heading3	11
CHAPTER 3: MATERIALS AND EXPERIMENTAL METHODS	29
3.1. Second level heading1	17
3.2. Second level heading2	18
3.3. Second level heading3	19
CHAPTER 4: EXPERIMENTAL RESULTS	20
4.1. Second level heading1	21

4.1.1. First level sub-heading1	22
4.1.2. First level sub-heading2	23
4.1.2.1. Second level sub-heading1	24
4.1.2.2. Second level sub-heading2	25
4.2. Second level heading2	26
4.2.1. First level sub-heading1	27
4.2.2. First level sub-heading2	28
CHAPTER 5: DISCUSSIONS AND CONCLUSIONS	29
APPENDICES.....	48
Appendix A. Sample preparation flow chart.....	50
Appendix B. Optical analysis software developed	51
REFERENCES/BIBLIOGRAPHY.....	65

Appendix K. A Sample of List of Figures Page

LIST OF FIGURES

Figure 1.1. Illustration of Moore’s law1
Figure 1.2. Work function of metal candidates.....13
Figure 2.1. Construction of metal-oxide-semiconductor MOS capacitors19
Figure 2.2. Block diagram of simultaneous Capacitance-Voltage measurement system ...22
Figure 2.3. Default values stored in material constant23
Figure 3.1. Structure of an MOS capacitor31
Figure 3.2. Energy-band diagrams for a p-type MOS capacitor32
Figure 3.3. Energy band diagram of MOS capacitor in accumulation region34
Figure 3.4. Energy band diagram of MOS capacitor in depletion region34
Figure 3.5. Energy band diagram of MOS capacitor at the threshold point35
Figure 4.1. Experimental High-Low frequency capacitance versus gate voltage curves of Al-SiO₂-Si MOS capacitors; reference sample60
Figure 4.2. Forward and reverse C-V curve of Al- SiO₂-Si MOS capacitor60
Figure 4.3. Experimental 1/C² versus gate voltage V_G graph of four different dots.62
Figure 4.4. Normalized experimental and theoretical capacitance versus gate voltage and conductance versus gate voltage of Al-SiO₂-Si MOS capacitor.62

Appendix L. A Sample of List of Tables Page

LIST OF TABLES

Table 1.1. key properties of high k dielectric candidates	5
Table 2.1. Deposition parameters of MOS structures used in this thesis the surface potential ψ_s for a p-type Si with $N_A^- = 1.2 \times 10^{15} \text{ cm}^{-3}$ at room temperature	19
Table 4.1. Summary of parameter extracted from experimental high frequency C-V measurements of Al-SiO ₂ -Si MOS capacitor; reference sample	63
Table 4.2. Summary of parameter extracted from experimental high frequency C-V measurements of MOS capacitor prepared without nitridation	70
Table 4.3. Summary of parameter extracted from experimental high frequency C-V measurements of MOS capacitor prepared after nitridation process at 700 °C in N ₂ O gas ambient.....	78
Table 4.4. Summary of parameter extracted from experimental high frequency C-V measurements of MOS	88
Table 4.5. Summary of parameter extracted from experimental high frequency C-V measurements of MOS capacitor prepared after nitridation process at 850 °C in N ₂ O gas ambient... ..	88
Table 4.6. Summary of parameter extracted from experimental high frequency C-V measurements of MOS capacitor prepared after nitridation process at 700 °C in NH ₃ gas ambient.	94

Appendix M. A Sample of List of Symbols Page

LIST OF SYMBOLS

V: Voltage

I_D : Dark current

R: Resistance

ρ : resistivity

l: Length of resistor

A: Cross-section of resistor

σ_D : Dark conductivity

σ_0 : Dark conductivity prefactor

E_C : Conduction band energy

E_F : Fermi energy

E_A : Activation energy

k : Boltzman constant

T: Absolute temperature

G: Conductance

E: Electric field

J: Current density

J_Ω : Ohmic current density

e: Charge of electron

K: Dielectric constant

ϵ_0 . Dielectric permittivity of air

ϵ_s . Dielectric permittivity of semiconductor

N_t : Trap density

LIST OF ACRONYMS/ABBREVIATIONS

SWE: Steabler-Wronski effect.

ESR: Electron spin resonance.

PDS: Photothermal deflection spectorcopy.

CPM: Constant photocurrent method.

DBP: Dual beam photoconductivity.

MPC: Modulated Photoconductivity.

SCLC: Space charge limited currents.

DBR: W. den Boer approximation.

RF-PECVD: Radio frequency-plasma enhanced chemical vapor deposition.

SEM: Scanning electron microscope.

Appendix O. A Sample of Curriculum Vitea

CURRICULUM VITEA

Name and Last Name: N**** B*****

Date of Birth: 1*/**/1****

Birth Place: A*****

E-mail:n*****@mu.edu.tr

Foreign Languages (Score and Date): National and internationally accepted exam results must be given.

Earned Certificates: indicate the certificates earned in your field of specialization.

Specialized Research Areas: Indicate your specialization in the fields of science and engineering by using keywords

Degree	Major/Minor	University	Date
Undergraduate			
Master of Science			
Doctor of Phylosophy			

Title of Master of Science Thesis and Thesis Advisor(s):

Title of Doctor of Phylosophy Thesis and Thesis Advisor(s):

National and International Research Projects Involved and Specific Contributions:

Affiliations to the Scientific Organizations (related to your profession):

Awards/Scholarships Earned:

Experienced Computer Programs:

SCIENTIFIC PUBLICATIONS

A. SCI-Expanded Journal Publications:

A1. List all SCI-Expanded journal publications

B. Full Text/Abstract Papers Published in Proceedings of International Conferences:

B1. List all conference proceedings papers here.

C. National TR-Index Journal Papers:

C1. List all TR-Index papers published by the author.

E. Full Text/Abstract Papers Published in Proceedings of National Conferences:

E1. List all national conference proceedings papers here.

Appendix P. A sample of Figure to be replaced in the thesis, centered between the margins and framed with single line text box.

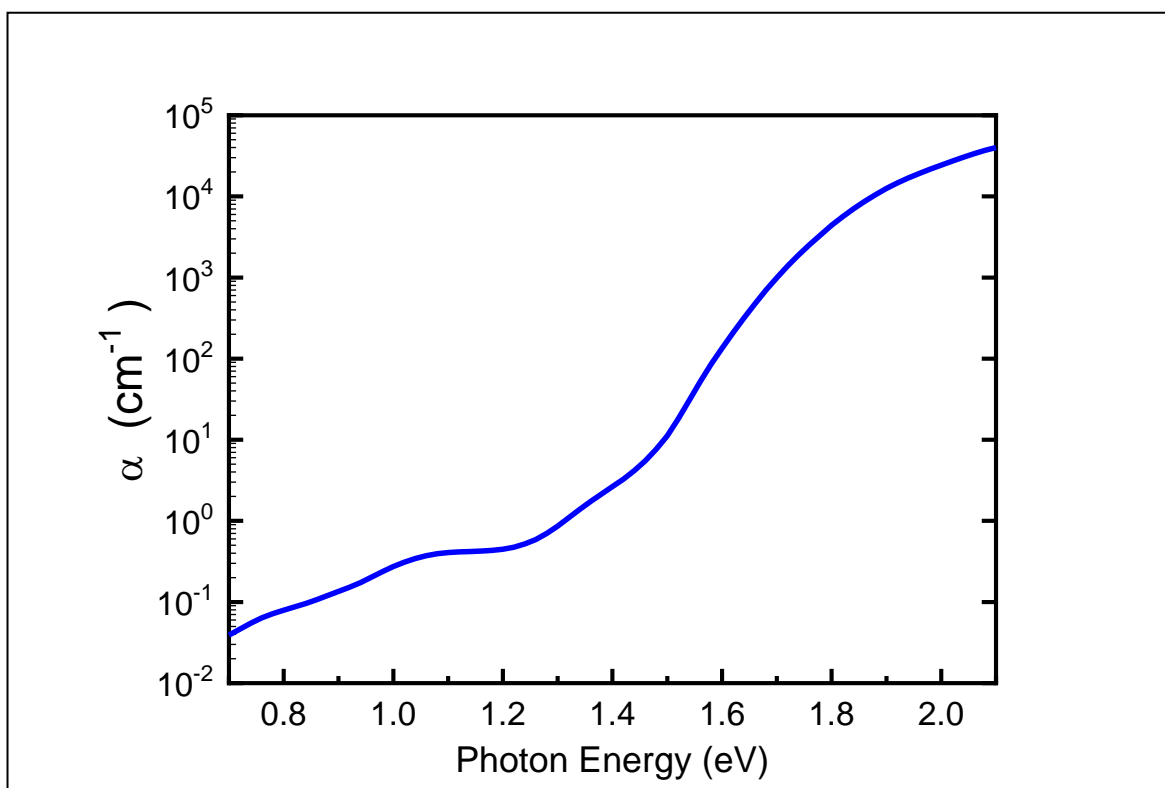


Figure A.1. Absorption coefficient spectrum of a semiconductor as function of photon energy obtained from the dual beam photoconductivity spectroscopy.

Appendix R. A Sample of Table to be inserted in a thesis, centered between the margins and replaced in a text box with a single line frame.

Table A.6. Preparation parameters of thin film materials and their structural and electronic parameters.

Sample ID	Substrate	t (nm)	Dep. Rate (nm/s)	Power (W)	H ₂ Flow (sccm)	SiH ₄ Flow (sccm)	I _C ^{RS} (%)	E _A (eV)
Sample 1	Rough glass	1127	1.27	200	200	8	75	0.33
Sample 2	Rough glass	735	0.08	20	200	4	83	0.24
Sample 3	Rough glass	1057	0.20	20	200	11	54	0.49
Reference sample	Smooth glass	1109	0.52	25	95	5	69	0.57

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