T.C.

ANKARA UNIVERSITY

INSTITUTE OF ACCELERATOR TECHNOLOGIES

THESIS WRITING GUIDE

2026
ANKARA

The Thesis Writing Guide was unanimously approved by the Accelerator Technologies Institute Board at its meeting dated 06/05/2026 and numbered 2026/6.

Republic of Turkiye
ANKARA UNIVERSITY
INSTITUTE OF ACCELERATOR TECHNOLOGIES
2026
http://hte.ankara.edu.tr/

CONTENTS

PREFACE

This guide, which sets out the rules and scientific presentation standards to be followed in terms of format and content in the writing and presentation of master's and doctoral theses conducted at the Institute of Accelerator Technologies of Ankara University, is presented with the belief that it will contribute to the work of our faculty members and students. We wish you success and offer our regards.

Ankara, March 2026

Institute of Accelerator Technologies Directorate

1. INTRODUCTION

The purpose of this guide is to introduce the rules to be followed in writing and presenting master's and doctoral theses prepared at the Accelerator Technologies Department of the Ankara University Institute of Accelerator Technologies (IAT), and to ensure complicance with scientific presentation standards. Students preparing master's or doctoral theses are required to adhere to the format and content rules given in this guide Furthermore, seminars must also be prepared in accordance with the rules given in this guide.

2. GENERAL FORMAT AND WRITING PLAN

2.1 Paper Specifications

The paper used for writing thesis should be A4 size (210 x 297 mm) and at least 80 gram first-grade paper.

2.2 Font Specifications

The thesis, should be written on a computer using a suitable program according to the rules in the guide

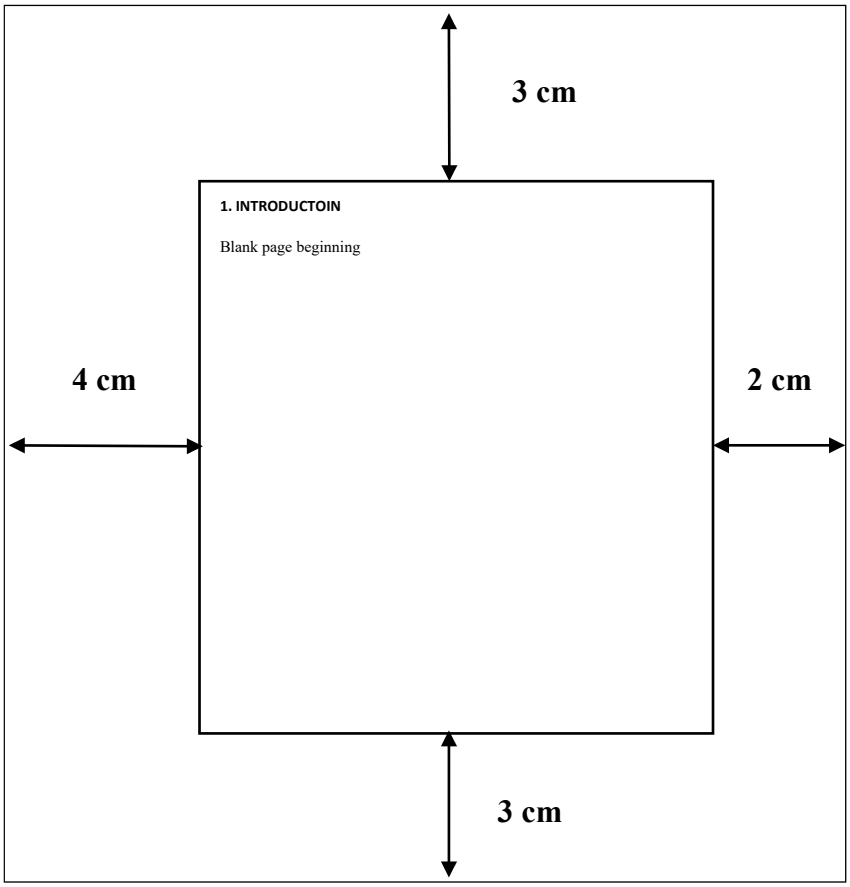
The font size should be **12 points**. However, the figure title, table content/table title, or explanations in the relevant sections of formulas should be taken into consideration.

Times New Roman, a widely used font, should be chosen.

One space should be left after punctuation marks in the writing.

2.3 Page Layout

The page structure of the thesis should be arranged as shown below.



2.4 Writing Plan

Theses should be written in accordance with writing rules, using fluent language and as many original English words as possible. Explanations in the relevant sections should be taken into account in the chapters and subchapters headings. Paragraphs should be justified. All headings should be bold.

2.5 Writing Style

A clear and simple language should be used. Sentences should be in the passive voice (e.g., ‘has been researched’, not ‘I researched’ or ‘we researched’).

2.6 Line Spacing

1.5 line spacing should be used in thesis writing. 2 line spacing should be used between main headings, subheadings, or paragraphs. 1 line spacing should be used for descriptions of figures and tables, citations, footnotes, equations, indexes, and the list of references. Similarly, main headings such as Abstract, Table of Contents, Index of Figures, Index of Tables, Index of Abbreviations and Symbols, and References should be written with 1 line spacing.

In the Abstract and Summary sections, the font size should be reduced to 10 points if necessary. The content should not exceed 250 words.

Each section should begin on a new page. There is no such restriction for subheadings.

2.7 Page Numbering

Page numbers should be written at the bottom center of the page and numbered as follows:

All pages before the introduction (**except the Thesis Approval page**) should be numbered with lowercase Roman numerals as “i, ii, iii, iv, v, vi,...”, while the thesis text, starting with the introduction, should be numbered as “1, 2, 3,...”.

The pages in the appendices section should be numbered as described in Section 5.7.

2.8 Section Organization

When determining the sections of the thesis, unnecessary detail should be avoided, and attention should be paid to the priority order of sections and subsections relative to each other.

First-level section headings should be in capital letters, and in second-level subsection headings, the first letter of each word should be capitalized, and the rest in lowercase. If there are conjunctions such as “and/or/with” in second-level headings, these should be written in lowercase. In third-level section headings, the first letter of the first word should be capitalized, and all other words should be in lowercase unless they are proper nouns. **If possible, subheadings beyond the third level should be avoided.** All section headings should be numbered in the left margin of the page.

Example:

1. INTRODUCTION

2. THEORETICAL FOUNDATIONS

2.1 Subheading

2.1.1 Other Subheading

2.2 Subheading

2.9 Citing Sources Within the Thesis

Citations within the thesis should be made according to the system of "[1], [2, 3], [4 - 6] etc.". References within the thesis should be as in the following examples:

Examples:

Drift tubes produce electromagnetic fields that accelerate during successive pulse intervals [1].

Waveguide RF input couplers are preferred for high-frequency applications and are easy to cool [4-6].

According to [2, 3], baryons, which are heavy, and mesons, which are medium-weight, form the class of hadrons (hadrons have strong forces in their structure and can produce new heavy-mass fundamental particles).

For sources prepared by a commission or institution and published anonymously by institutions and organizations, the work is indicated as "**Anonim**" if it is in Turkish, and **Anonymous** and the **year** if it is in a foreign language.

Example:

[4] Anonymous 1962), Absolute temperature in a superconductor is 0 °K (–273.15 °C, -459.67 °F).

[5] (Anonymous 1962), Hadrons are a composite particle consisting of quarks and consisting of stable protons, neutrons (baryons) and many unstable particles (mesons) held together by the strong nuclear force.

If a source is cited within another publication, it is written as follows.

Example:

As reported by [2]; the antineutron was discovered by ([4]) at Lawrence Berkeley National Laboratories one year after the discovery of the antiproton. (Note: [2] should be explicitly cited in the "References" section; here [4] is the reference made within the [2] reference.)

References for **Figures/Tables** are detailed in **Section 3.4**.

Every source cited in the thesis must be included in the REFERENCES section of the thesis.

2.10 Quotations

If a section taken from another source is to be quoted verbatim within the thesis, this quotation is written in parentheses "....." and its bibliography is indicated. The quotation in double quotation marks should be as short as possible (not exceeding two sentences).

Example:

(1) In the Radiation Safety Regulation, monitored areas are defined as "areas where there is a possibility of exceeding 1/20 of the annual dose limits for radiation workers, but not expected to exceed 3/10, where personal dose measurement is not required, but monitoring of environmental radiation is necessary" (TAEK 2000).

2.11 Footnotes

Very short and concise explanations that distract from the subject and hinder reading continuity should be given as **footnotes** in a few lines at the bottom of the same page. Footnotes should be separated from the main text on the page by a continuous line drawn from left to right to the middle of the page, **leaving two spaces**. Footnotes should be numbered starting from "[1]" according to the order in which they are written on each page, and the footnote explanation must be **on the page where the reference is made**. Footnotes should be written in **10-point font and 1 line spacing.**

Example:

(1)

…… has taken a role.[1] ……

[1] The footnote text should be written below this line.

2.12 Symbols and Abbreviations

Symbols should be in alphabetical order and listed one below the other. Definitions or explanations of symbols should be written in blocks with 20 spaces (**Appendix 8**). Definitions or explanations of abbreviations should be written in blocks with 20 spaces (**Appendix 9**). Within the thesis, they should be explained only once in parentheses the first time they appear.

International and Turkish Standards must be followed **(Appendix 13).**

The same standards should be used for unit symbols, and **a full stop should not be placed** at the end of the unit symbol.

3. FIGURES AND TABLES

All lines, symbols, signs, numbers, and text in figures and tables must be typed using a keyboard and must not be smaller than 10 points.

3.1 Placement of Figures and Tables

Figures and tables should be placed on the page where they are first mentioned in the text or on the following page. If tables longer than one page must be included in the thesis text, they should be divided into sections of one page at an appropriate point. The continuation of the table should be given on the next page with the same table number and the word "(continued)". If necessary, it should also be included in the **APPENDICES** section. **Folded figures or tables should also be included in the appendix and bound in the volume.**

Example:

(1) **Table 4.4** Table title

3.2 Numbering of Figures and Tables

All figures and tables are numbered according to the section number in which they are located. Numbering should be done using numerals. A period should not be placed after the figure and number. These expressions should be in bold.

Example:

(1) Figure 1.1 , **Figure 1.2** , **Figure1.3** ,….,
Figure 2.1 , **Figure 2.2** , **Figure 2.3** ,….,

(2) Table 1.1 , **Table 1.2** , **Table 1.3** ,….,
Table 2.1 , **Table 2.2** , **Table 2.3** ,….,

3.3 Figure and Table Captions

A space of 1.5 lines should be left between the figure/table placed after the paragraph. Figure titles should be written below the figure and above the table, with one line spacing between each line. A one-line space should also be left between the first line of the figure title and the bottom edge of the figure, and between the last line of the table title and the top edge of the table. Figure/table titles that extend to the next line should continue from the alignment of the first figure/table title. Figure/table titles that span multiple lines should be written in 10-point font. No periods or commas should be placed at the end of Figure or Table titles.

Example:

(1) The figure is centered on the page as shown below (the frame is for illustrative purposes only).

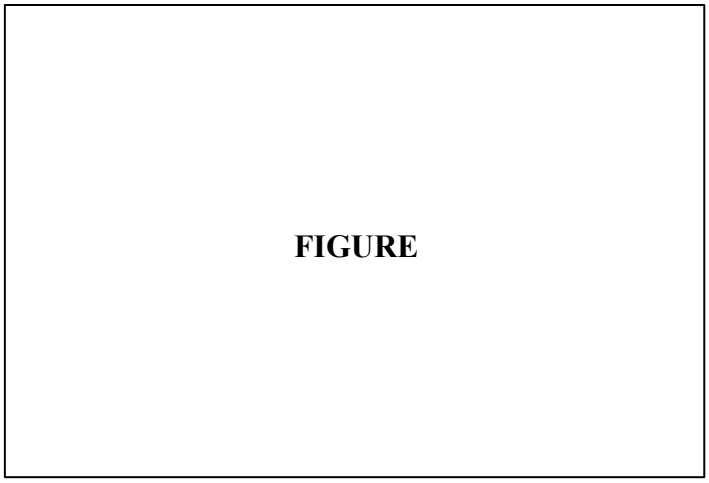


Figure 2.27 Figure caption (author and year cited if necessary)

(2)

Table 1.2 Table title Table title Table title Table title Table title Table title

Definition1	Definition2	Definition3	Definition4	Definition5
1,6	22,1	5,0±1,2	125,0±8,2	498,0±%8,2
2,8	38,4	9,3±2,0	195,9±12,1	942,0±%7,1
3,7	45,6	15,7±1,1	250,3±11,1	1250,0±%6,1
4,9	87,2	25,6±3,5	325,0±33,5	3255,0±%3,3

3.4 References to Figures and Tables in the Text

Changes to figures and tables should be as follows.

(1) Text statement (**Figure 2.1**).

(2) The results obtained are given in **Figure 2.2.**

(3) The electric field distributions obtained with simulation programs (Figure 3.4, Figure 3.5 and Figure 3.6) are shown below for both injector and main accelerator cavities.

(4) 15 modes were run in the simulation program for the higher-order mode coupler, one of which is the accelerator mode in pi mode, and the rest are higher-order modes; the characteristics of these modes are given in Table 3.1.

If a figure or table taken verbatim or modified from another publication is used, the caption of the figure or table should be cited in the thesis according to the rules of citation.

Example:

(1) Figure 2.2 Schematic representation of the vacuum device [5]

Here, Figure 2.2 Schematic representation of the vacuum device is taken from [5] with modification.

4. THESIS COVER AND SPECIAL PAGES

4.1 Thesis Cover (To be provided by the Institute.)

4.2 Inner Cover Page (APPENDIX 1)

4.3 Thesis Approval Page (APPENDIX 2)

Important Note: If the Master's Thesis is supervised by an advisor and a co-advisor, the jury members (including the co-advisor) must consist of 5 people.
The signatures in **APPENDIX 2** must be wet signatures with blue ink.

4.4 Ethics Page (APPENDIX 3)

The signature section in **Appendix 3** must be a wet signature with blue ink by the author.

4.5 Abstract

This section, as specified in the guide prepared by the YÖK Thesis Center, should not contain italic font, tables, figures, graphs, chemical or mathematical formulas, symbols, subscripts or superscripts, Greek letters or other non-standard symbols or characters. This section should not exceed 250 words.
The Abstract should clearly and concisely state the purpose, scope, method(s) used, and conclusion(s) of the thesis. However, these should not be presented as headings. Text spacing should be 1, and font size should be 10 points when necessary.

In writing the titles of faculty members;

Prof. Dr. ---------- Prof. Dr.
Doç. Dr. ---------- Assoc. Prof. Dr.
Dr. Öğr. Üyesi ---------- Assist. Prof. Dr.

members, abbreviations should be used. **(Appendices 4-5)**

4.6 Preface (and/or) Acknowledgments

This section contains additional information that the author wishes to highlight regarding the study. If necessary, at the end of this section, **thanks** should be given to individuals who directly contributed to the thesis and its preparation, as well as to individuals and institutions/organizations that contributed outside of their usual duties, even if not directly involved. The title, name, and surname of the thanked individuals should be stated, if any. This section should not exceed 2 pages. If the thesis was carried out within the scope of a project, the name and number of the project and the name of the relevant organization should also be stated in this section **(Appendix 6).**

4.7 Table of Contents

This should be prepared according to the example in **Appendix 7**. All chapter and subchapter headings, references, curriculum vitae, (appendices if any), etc., included in the thesis text should be given in full and exactly as they are in the Table of Contents.

4.8 List of Abbreviations and/or Symbols

This section should list the abbreviations and/or symbols used in the text **(Appendix 8).**

4.9 List of Figures

If the list is longer than one page, **no headings should be written** on the second and subsequent pages. Each line of figures should be written with 1 line spacing and 10-point font **(Appendix 9).**

4.10 List of Tables

If the list is longer than one page, **no headings should be written** on the second and subsequent pages. Each line of tables should be written with 1 line spacing and 10-point font **(Appendix 10).**

5. ORGANIZING THE THESIS CONTENT

Thesis should consist of five main sections: **Introduction, Theoretical Foundations and/or Literature Summaries, Materials and Methods, Research Findings, Discussion, and Conclusion** (and **Recommendations**, if any). However, in line with the aims and scope of the thesis, while the titles of the Introduction and Conclusion sections remain the same, the titles of the other sections should be arranged as deemed appropriate by the thesis advisor and the author. **References** section should be included at the end of the thesis, and if necessary, **Appendices** should be provided as a separate section. The candidate's **Curriculum Vitae** should be included at the very end of the thesis.

5.1 Introduction

After providing preparatory information related to the thesis topic, the aim and scope of the research should be clearly stated. If there are any previous studies, these should also be included in the Introduction section.

If unusual and/or controversial naming, classification, and concepts have been used in the thesis work and writing, their explanation should also be given in the Introduction section.

5.2 Literature Review

The necessary theoretical foundations related to the thesis topic should be provided. Brief summaries of previous studies on the subject should be given.

5.3 Materials and Methods

Materials are the objects studied or used in the research. Information about the characteristics of the materials, their usage, etc., should be included in this section.

Methods are the technique(s) used to achieve the research objective. They should be presented clearly and understandably.

If the method used is an internationally standardized method, it is sufficient to only cite the source and name the method. However, if any changes have been made to a standard method, they should be given in detail.

5.4 Research Findings

The findings obtained from the thesis should be written concisely and clearly. If the findings are discussed in this section, the section title should be given as **RESULTS AND DISCUSSION.**

5.5 Discussion and Conclusion

This section should include a comparison of the findings obtained from the thesis with studies in the literature, along with the researcher's interpretation. The results of the thesis research should also be written briefly, concisely, and clearly. If the findings have been discussed in the previous section, the section title should be CONCLUSION. If there are RECOMMENDATIONS, they should be presented under a subheading.

5.6 References

"References" section listing the sources used should be include in the thesis. Every source referenced in the text should be included in the "References" section, and every source included in the "References" section should be cited in the text. The works included in the "References" section should be works that the author has read and used.

The researcher may need to rephrase or summarize information taken from a source in a way that is consistent with the general flow of the text. In this case, since the attribution of the information does not change, citing the source is mandatory. **Even if a source is cited**, the entire work or a significant portion of it cannot be taken and transferred from another study.

The "References" section does not provide information on which source was used. This information should be cited in the text at the relevant point, with a reference to the source. Quotations made without alteration from a source should be shown in parentheses exactly as they appear in the original source.

It should be noted that for works, images, tables, formulas, figures, etc., that are subject to patents and copyrights, permission may also be required in addition to citing the source.

References should be arranged as shown in the examples and written starting from the left margin. The font size should be 12 points and single line spacing; lines after the first line of the reference should begin one tab indentation from the left margin. One space should be given after each reference **(Appendix 11).**

The following rules should be followed in identifying references.

1) Book

Last name -comma- Initial(s) of first name -full stop- Publication year -full stop- Title of publication -full stop- Publisher -comma- Number of pages -comma- City or country -full stop-

Example:

[1] Kamil, Y. 1996. Vakum Teknolojileri. Kamiller yayınevi, 89, Ankara.

[2] Johnson, J. 2001. Specialty corns. Marcello and Decker Inc., 469, London.

2) Book Section

Example:

[5] Castello, E., Martinez, A., Condor, B. J. ve Combes, D. 2000. Polymer materials using high power antennas, In: Annals of the California Academy of Science. Dor, S. ve Russell, C. (eds), The California Academy of Science, 206-211, California.

3) Journal

Last name - comma - initial(s) of first name(s) – full stop - comma - year of publication - comma - "article title" - comma - journal in which it was published (should be written in italics) - comma - volume and issue number in parentheses - comma - beginning and ending page - full stop -

If publications by the same author(s) from different years are given, alphabetical order should be established starting with the publication by the first one. If publications by the same author are given from the same year, alphabetical order should be established by placing a letter next to the publication year according to the order in which they are mentioned in the text.

Example:

[9] Habubin, M. ve Knut, B., 2002 “Activity and stability of radionuclid from different sources”, Journal of Chemical Technology and Radionuclid 76(2), 1294-1299.

When citing articles with three or more authors, the abbreviation "et al." is used in the text, and the full names of the authors are given in the reference list. International abbreviations of the periodicals used in the references should be included. If these abbreviations are not known, the original name of the periodical should be used.

4) Published Thesis

Example:

[19] Author's last name, Initial of the first name, and a period. (2009). Title of the thesis. Master's Thesis, Ankara University, Institute of Accelerator Technologies, Department of Accelerator Technologies, 190, Ankara.

5) Unpublished Thesis

Example:

[21] Author's last name, First Initial, and period. (2013). Title of the thesis. Master's Thesis (unpublished). Ankara University, Institute of Accelerator Technologies, Department of Accelerator Technologies, 108, Ankara.

6) Congress and Symposium

Example:

[24] Authors' last names and initials (year). Written paper title, Congress name, Date of organization, Location, Printed Full Paper or Abstract Book and electronic if available.

[25] Ertem, Ş., Güvenir, A., Keskin, B., Kum, N. and Ahmetoğlu Ü. 2009. Effect of High Frequency Repetitive Magnetic Stimulation on Semi-conductors L., European Congress of Physical Engineering (ECPE-6), 16-20 October, Book of Abstracts, Vol 2, 987-988, Hamburg, Germany.

7) Written Interview

Example:

[28] Kaya, A. 2008. Written interview. Ankara University, Accelerator Technologies Institute, Accelerator Division, Ankara, Turkiye.

8) Website

[34] Anonymous. 2003. Website: http://www.novo.dk, Access Date: 15.08.2013.

5.7 Appendices

Explanations that are distracting and disruptive to reading, and that are too long to be given as footnotes, such as the derivation of a formula, extensive and detailed experimental data, sample calculations, drawings, figures, etc., should be included in this section.

Each **APPENDIX** should have a separate title (e.g., **Appendix 1, Appendix 2, Appendix 3**), and each should begin on a new page. If more than one APPENDIX is included, a separate **APPENDICES** cover should be provided with the title of each **APPENDIX**, and the page numbering should continue with the page number following the end of the References section. If there is only one appendix, an APPENDIX cover should not be included. **The Table of CONTENTS** should also be listed sequentially and completely.

5.8 Curriculum Vitae

should be prepared according to the example given in **Appendix 12** and placed on the last page of the thesis.

5.9 Printing Guidelines

The introduction should be printed on both sides of the paper using a high-quality printer.

THESIS CONTENT AND TITLE NUMBERING SYSTEM

INNER COVER PAGE (unnumbered page)

APPROVAL PAGE (unnumbered page)

ETHICS

ÖZET

ABSTRACT

PREFACE (and/or) ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF SYMBOLS (and/or) ABBREVIATIONS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

2. THEORETICAL FOUNDATIONS and/or REFERENCES

3. MATERIALS AND METHODS

3.1 Materials

3.2 Methods

3.2.1 (Title must be written)

3.2.2 (Title must be written)

4. RESULTS (Optional)

5. DISCUSSION AND CONCLUSION

6. REFERENCES

APPENDICES

APPENDIX 1 (Title must be written)

APPENDIX 2 (Title must be written)

CURRICULUM VITAE

APPENDIX 1

Republic of Turkiye
ANKARA UNIVERSITY
INSTITUTE OF ACCELERATOR TECHNOLOGIES

MASTER'S THESIS

……...THESIS TITLE……...
……

Name and SURNAME

DEPARTMENT OF ACCELERATOR TECHNOLOGIES

ANKARA
20…

APPENDIX 2

THESIS
APPROVAL

The thesis entitled……..…**Thesis Name**……. prepared by **"…….……Author's Name and SURNAME ……..……"** was unamiously accepted as a **MASTER THESIS** in the Department of Accelerator Technologies, Institute of Accelerator Technologies, Ankara Univtersity, by the following jury on ...../ ...../20.....

Supervisor: Title, First Name, SURNAME
University / Department

Co–Supervisor: Title, First Name, SURNAME (If applicable)
University / Department

Examining Committiee Members:

Title, Name SURNAME
Chair
University / Department

Title, Name SURNAME
Member
University / Department

Title, Name SURNAME
Member
University / Department

The above result is approved.

Title, Name SURNAME
Director of the Institute

APPENDIX 3

ETHICS

I declare that all the information in this thesis, which I prepared in accordance with the thesis writing guidelines of Ankara University Accelerator Technologies Institute, is accurate and complete, that I acted in accordance with scientific ethics during the production of this information, and that I have cited all the sources I used.

Defense Date

Signature

Student's Name and Surname

APPENDIX 4

ABSTRACT

MSc. Thesis

……..NAME OF THESIS…..……...
……

Name SURNAME

Ankara University
Institute of Accelerator Technologies
Department of Accelerator Technologies

Supervisor: Title, Name SURNAME
Co-Supervisor: Title, Name SURNAME

According to the guide prepared by YÖK Thesis Center, these text fields, italic fonts, charts, figures, graphics, physical or mathematical formulas, symbols, subscript, superscript, Greek letters or other non-standard symbols or cannot contain characters and it should not exceed 250 words. In the abstract, the purpose, scope, method(s) used and conclusion(s) of the thesis study should be stated clearly and concisely. However, they should not be given in the form of title. The text spacing can be written in 1, 10 points if necessary. If there is project support in the thesis, the name of the project, its code and the name of the supporting organization should be specified in the paragraph.

Month Year, … pages

Keywords : Word1, word2, word3, word4, word5, word6 (*max. 6 words permitted*)

APPENDIX 5

ÖZET

Yüksek Lisans Tezi

……..TEZ ADI …….
…….

Adı SOYADI

Ankara Üniversitesi
Hızlandırıcı Teknolojileri Enstitüsü
Hızlandırıcı Teknolojileri Anabilim Dalı

Danışman: Ünvanı, Adı SOYADI
İkinci Danışman: Ünvanı, Adı SOYADI

Bu bölüm, YÖK Tez Merkezi'nin hazırlamış olduğu kılavuza göre metin alanları, italik yazı tipi, çizelge, şekil, grafik, fiziksel veya matematiksel formüller, semboller, alt veya üst simge, Yunan harfleri veya diğer standart olmayan simge veya karakterler içermemelidir ve 250 kelimeyi geçmemelidir. Özet kısmında tez çalışmasının amacı, kapsamı, kullanılan yöntem(ler) ve varılan sonuç(lar) açık ve öz olarak belirtilmelidir. Ancak, bunlar başlık şeklinde verilmemelidir. Metin aralığı 1 ve gerektiği durumda 10 punto da yazılmalıdır. Tezde proje desteği varsa; proje adı, kodu ve destek veren kuruluşun adı belirtilerek en alt paragrafta belirtilmelidir.

Ay Yıl, … sayfa

Anahtar Kelimeler: Kelime1, kelime2, kelime3, kelime4, kelime5, kelime6 (*en fazla 6 adet kelimeye izin verilir.*)

APPENDIX 6

FOREWORD AND ACKNOWLEDGEMENTS

This section contains additional information about the study that the thesis author wishes to highlight. The thesis advisor(s) should be thanked for their efforts.

If necessary, at the end of this section, thanks should be given to individuals who directly contributed to the thesis work and its preparation, as well as to individuals and organizations who, although not directly involved, actively contributed outside of their usual duties. The contribution of the Institute's legal entity should also be mentioned due to the use of HTE resources. The thesis author may also thank friends and family members if desired. If applicable, the title, full name, and the organization they work for (in parentheses) of the individuals thanked should be briefly and concisely stated. This section should preferably be one page, but should not exceed two pages.

If the thesis work was carried out within the scope of a project, the name and number of the project and the name of the relevant organization must also be clearly stated in this section.

Name SURNAME

Ankara, Year Month

APPENDIX 7

TABLE OF CONTENTS

APPENDIX 8

SYMBOLS AND ABBREVIATIONS

Symbols

CO_2	Carbon dioxide
HCl	Hydrochloric Acid
NaOH	Sodium Hydroxide
H_2SO_4	Sulfuric Acid
nm	Nanometer
°C	Celsius
Rpm	Revolutions per Minute

Abbreviations

APS	Ammonium Persulfate
EDTA	Ethylene Diamine Tetraacetic Acid
N-PAGE	Native-Polyacrylamide Gel Electrophoresis
ME	Mercaptoethanol
MRSA	Methicillin-Resistant *Staphylococcus aureus*
MSSA	Methicillin-Susceptible *Staphylococcus aureus*
PAGE	Polyacrylamide Gel Electrophoresis
S.	*Staphylococcus*
SDS	Sodium Dodecyl Sulfate
SDS-PAGE	Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis
TAE	Tris Acetic Acid EDTA
TEMED	Tetra Ethyl Methylene Diamine
TEP	Total Extracellular Protein

APPENDIX 9

LIST OF FIGURES

APPENDIX 10

LIST OF TABLES

APPENDIX 11

REFERENCES

The references used in the thesis should be numbered according to their order in the thesis text and listed as a single index under the heading REFERENCES. The following general format should be followed when describing the references. The headings (1), (2), (3) and (4) are provided as examples to assist you in creating the references. These headings will not be included in the References section.

(1) BOOK

[1] Duran Yildiz H. 2018 Introduction to Accelerator Physics Lecture Notes, Ankara University, Institute of Accelerator Technologies, Ankara.

[2] Menzel T. Stokes K. 1987, User's Guide for the POISSON/SUPERFISH Group of codes, Los Alamos National Laboratory, Los Alamos, New Mexico

[3] Belomestnykh S. Shemelin V. 2005, High-B Cavity Design – A Tutorial, Presented at the 12th International Workshop on RF Superconductivity (SRF2005), Ithaca, NY, July

[4] Gürses, A., Yalcin, M. and Dogar, C. 2002. Electrocoagulation of some reactive dyes: a statistical investigation of some electrochemical variables. Waste Manag, 22, 491- 499.

(2) JOURNAL

[5] J. Demko, J. Fesmire Shu 'Q. Cryogenic Heat Management' *Technology and Applications for Science and Industry Chapter 11 First Edition*, 2022; p295-p315

[6] Duran Yildiz, H. 2018. Design and Optimization of Oscillator Structures in Linear Accelerators, *Süleyman Demirel University, Faculty of Science and Literature, Science Journal 13(1); 28-37)*

(3) SYMPOSIUM

[7] Rusnak B. 2003, RF Coupler Tutorial, 11th Workshop on RF Superconductivity, Lawrence Livermore National Laboratory Lübeck, Germany.

[8] Dinçer, İ. 2022. Clean Energy Solutions and Management for Better Sustainability. April 6-8, 2022. International Energy Management and Sustainability Symposium (ISEMAS) 2022; Istanbul.

(4) THESIS, PROJECT, PAPERS, REGULATIONS, PATENTS, WEBSITES, etc.

[9] Anonymous. 1999. Polarization Standard. TS 4214. Turkish Standards Institute (TSE), Ankara.

[10] Anonymous. 2005. Accelerator Technologies Circular. Circular No: 2005/11.

[11] Anonymous. 2012a. Report on Electromagnetic Wave Propagation Velocity Statistics. Ankara.

[12] Erişim tarihi: 26.08.2023. CERN. 2023. Accelerating: Radiofrequency Cavities. Website: https://home.cern/science/engineering/accelerating-radiofrequency-cavities

Accessed: 26.08.2023.

[13] Patent No: US4816421A, 1986, https://patents.google.com/patent/US4816421

[14] Dağlı, B. 2003. Composite Curing Method Using X-Rays. Master's Thesis. TOBB ETÜ, Institute of Science, Ankara. (*Written as an example. Such a thesis does not exist.)

[15] Uçok, A., Özkaya, D., Karahan, M., Delialioğlu, M. and Dağlı, B. 2011. Use of Particle Accelerators in the Aircraft Sector. TÜBİTAK Project No: 701X213; Ankara. (*Written as an example. Such a project does not exist.)

APPENDIX 12

CURRICULUM VITAE

Name Surname :

Place of Birth :

Date of Birth :

Educational Background (Institution and Year)

High School : School Name (Year of Graduation)

Undergraduate : University Name Faculty Name Department Name (Year of Graduation)

Master's Degree : University Name Institute Name Department Name
((Month and Year of Entry into Program – Month
and Year of Graduation)

Professional Experience

…….

Publications (SCI) (Publication years should be considered.)

…….

Publications from Thesis

…….

Other Publications

…….

National Congress Presentation/Poster (Presentation/Poster dates should be considered.)

…….

International Congress Presentation/Poster (Presentation/Poster dates should be considered.)

…….

International Collaboration Presentations

……

Trainings/Courses/Projects Attended, Certificates Received, etc.

…….

Other Publications

…….

Trainings/Courses/Projects Attended, Certificates Received, etc.

……

APPENDIX 13

QUANTITIES, UNITS, SYMBOLS

The number of quantities, units, and symbols used in basic and applied sciences is in the thousands. This list includes the main and frequently used units and symbols that make up the SI unit system. Adherence to the SI unit system is mandatory in numerical and dimensional evaluations in theses.

1. Basic Units of the SI Unit System

Dimension	Unit	Symbol
Length	meter	m
Mass	kilogram	kg
Time	seconds	s
Electric Current	ampere	A
Thermodynamic Temperature	kelvin	K
Luminous Intensity	candela	cd
Amount of Substance	mole	mol

2. Multiples and Submultiples of SI Units

Exa	10^{18}	E
Peta	10^{15}	P
Tera	10^{12}	T
Giga	10^{9}	G
Mega	10^{6}	M
Kilo	10^{3}	k
Hecta	10^{2}	h
Deca	10	da
Deci	10^{-1}	d
Centi	10^{-2}	c
Milli	10^{-3}	m
Micro	10^{-6}	μ
Nano	10^{-9}	n
Pico	10^{-12}	p
Femto	10^{-15}	f
Atto	10^{-18}	a

3. Universal Constants in SI Units

Electron Charge	e^-	1,602192	10^{-19}	C
Avagadro Number	L,N	6,0221367	10^{23}	particles/mol
Faraday Constant	F	9,648531	10^4	C/mol
Gas Constant	R	0,082057		Latm/mol K
		8,314510		J/mol K
Boltzmann Constant	k	1,38066	10^{-23}	J/K
Speed of light in vacuum	c	299779249,8		m/s
Electron Mass	m_e	9,10953	10^{-31}	kg
Proton Mass	m_p	1,67648	10^{-27}	kg
Neutron Mass	m_n	1,674954	10^{-27}	kg
Atomic Mass Unit	amu	1,660566	10^{-27}	kg
Planck Constant	h	6,6260755	10^{-34}	J.s
Bohr magneton	μ_B	9,27408	10^{-24}	$J.T^{-1}$
Gravity Acceleration	g	9,80665		$m.s^{-2}$
Gravitational Constant	G	6,67259	10^{-11}	$N.m^2$ kg

4. Mechanical Units and Heat Units

Kilogram	kg
Ton	t
Mass	m
Atomic mass unit	amu, u, Da
Density	d
Volume	V,v
Force, Weight	F_g, G, w
Newton	N (kg $m.s^{-2}$)
Momentum	P
Moment	M
Angular momentum	L
Torque	M,T
Gravitational constant	G (G=6,67259 $10^{-11}N.m^2$ kg^{-2})
Impulse	I
Moment of Inertia	I,J
Pressure	P
Stress	σ
Pascal	Pa, N/ m^2
Shear stress	ι
Shearing stress	γ
Linear stress	ε
Bulk stress	ν
Elastic modulus	E
Shear modulus	G
Bulk modulus	K
Compressibility	ϕ
Dynamic friction factor	μ
Static friction factor	μs
Viscosity (dynamic visco.)	η
Kinematic viscosity	ν

Surface tension	σ, γ
Energy	E
Work	W
Potential energy	Ep
Kinetic energy	Ek
Power	P
Efficiency	η
Mass flow rate	qm
Volumetric flow rate	qv
Joule	J
Watt	W = 1 J/s
Thermodynamic temperature	T
Celsius temperature	t
Kelvin	K
Celcius	°C
Fahrenheit	°F
Reomur	°Re
Rankine	R
Heat flow rate	Φ
Amount of heat	Q,q
Thermal conductivity coefficient	λ, k
Heat conduction coefficient	k
Pressure expansion coefficient	β
Isothermal compressibility	X_T
Surface heat conduction coefficent	h
Heat resistance	R
Heat diffusion coefficient	a
Heat capacity	C
Mass heat capacity	c
Heat capacity at constant pressure	C_p
Heat capacity at constant volume	C_v
Enthalpy	H
Entropy	S
Helmholtz free energy	A
Gibbs free energy	G
Thermodynamic internal energy	U

5. Units of Space and Time

Angle (in a plane)	β, Y, ϕ
Angle (in space)	Ω
Radian	rad
Degree	°
Minute	′
Second	*
Steradian	sr
Length	L
Width	b
Height	h
Thickness	d,s
Diameter	D

Radius	r
Distance	d,r
Radius of curvature	p
Curvature	π
Meter	m
Area	A,S
Volume	V
Litre	L
Velocity	v, u
Angular velocity	ω
Acceleration	a
Angular acceleration	α
Gravitational acceleration	g
Angstrom	A°

6. Units Related to Periodic Events

Periodic time	T
Frequency	f, v
Rotational frequency	n
Angular frequency	ω
Wavelength	λ
Wave number	σ, λ^{-1}, k
Phase velocity	c,v,c_ϕ,v_ϕ
Second	s
Hertz	Hz

7. Units of Electricity and Magnetism

Electric current	I
Electric charge	Q
Volume charge density	P
Electric field strength	E
Potential difference (voltage)	v
Electromotive force	EMF, E
Electric flux density	D
Ampere	A
Coulomb	C
Volt	V
Electric flux	γ
Capacitance	C
Electric permittivity	εr
Electric perimttivity of vacuum	εo
Polarization	P
Magnetic field strength	H
Farad	F
Magnetic flux density	B
Specific Inductance	L
Leakage factor	σ
Gauss	Gs
Tesla	T
Weber	Wb

Henry	H
Magnetic permeability	μ
Magnetic permeability of vacuum	μo
Molar magnetic susceptibility	X_m
Resistance	R
Ohm	Ω
Conductance	G
Siemens	S
Power (for electric current)	P
Resistivity	ρ
Conductivity	σ
Number of turns	N
Number of phases	m
Frequency	γ
Rotational frequency	n
Impedance	z
Admittance	y
Gaussian magnetic susceptibility	K_s
Gaussian magnetization	M_s

8. Quantities and Units Related to Light and Electromagnetic Radiation

Electromagnetic wave propagation speed (sp. of light)	c
Radiation energy	Q,W,E
Radiation energy flow rate	ϕ, ψ
Beam intensity	I
Radiation density	L
Radiation emission power	m
First radiation constant	C_1
Second radiation constant	C_2
Stefan-Boltzmann constant	σ
Emission rate	ε
Photon number	Np, Qp, Q
Photon density	Lp, L
Foton yayma gücü	Mp,M
Photon emission power	Ep, E
Candela	Cd
Lumen	Lm
Lux	Lx
Illumination	E
Light efficiency	K
Light yield	V
CIE three-color functions	X_λ, Y_λ, Z_λ
Three-color coordinates	X, Y, Z
Spectral absorption	ϕ_λ
Spectral reflectance factor	ϕe_λ
Spectral transmission factor	Z_λ
Spectral light intensity	β_λ
Optical density	D_λ
Linear absorption coefficient	a
Molar absorption coefficient	ε

Absorbance	A
Transmittance	T
Light path length	L
Object distance	P
Image distance	p
Focus	f
Diopter	1/F
Refractive index	n

9. Acoustic Quantities and Units

Speed of sound	c
Group velocity	C_g
Sound power	P,Pa
Sound intensity	I,J
Acoustic impedance	Z_a
Mechanical impedance	Z_m
Sound pressure level	L_p
Damping coefficient	S
Decompression	Z
Bel	B
Logarithmic decrement	Λ
Phase damping coefficient	β
Spread coefficient	γ
Absorption	δ,ψ
Reflection factor	r
Transmission factor	τ
Neper	Np
Sound reduction index	R
Reverberation time	T
Sound intensity	N

10. Nuclear Reactions Units related to 7, 5, 10

Reaction energy	Q
Resonance energy	E_r, E_{res}
Influence	σ
Particle flux density	φ
Particle flux density velocity	ϕ
Attenuation coefficient	μ
Neutron number	n
Neutron velocity	v
Neutron flux density	ϕ
Emission coefficient	D,Dn
Neutron source density	S
Resonance escape probability	P
Mean free path	I,λ
Number of neutrons per fission	Y
Number of neutrons per absorption	η
Fast fission factor	ε
Thermal factor	f
Propagation coefficient	k

Reactor time constant	T
Activity	A
Becquerel	Bq
Gray	Gy
Sievert	Sr
Rad	Rad
Rem	Rem
Kerma	K
Mass energy transfer coefficient	μ_u/p
Exposure rate	X

11. Quantities Related to Solutions and Fluids

Concentration	C
Molarity	M
Molality	m
Normality	N
Volume percentage	% h/h (% v/v)
Percentage	%
Formality	F
Molar fraction	x
Parts per million	ppm
Parts per billion	ppb
Val	V
Reaction rate	r
Solubility product	K_{sp}
Activity coefficient	a_i
Diffusion coefficient	D
Resolution	R
Reynolds number	Re
Mach number	Ma
Froude number	Fr
Equivalent conductivity	Λ
Van't hoff factor	i
Transport number	t, u
Parachor	p
Dipole moment	μ

12. Abbreviations Related to the Names of Chemical Substances and Polymers

Methyl	Me
Ethyl	Et
n-propyl	n-Pr
iso-propyl	i-Pr
n-butyl	n-Bu
tertiarybutyl	t-Bu
Acetyl	Ac
Acetate	AcO
Alkylsulfonic acid ester	ASE
Acrylonitrile/butadiene/styrene	ABS
Benzyl octyl adipate	OA
Benzyl butyl phthalate	BBP

Bis-glycolether N, N0, N1, N2 tetraacetic acid	EGTA
Diethylene glycol adipate	DEGA
Diethylene glycol succinate	DEGS
Diethylene glycol sebazate	DEGSE
Diisooctyl adipate	DIOA
Diisooctyl phthalate	DIOP
Dioctyl phthalate	DOP
Dimethyl formamide	DMF
Dimethyl sulfoxide	DMSO
Diethylene triamine pentaacetic acid	DTPA
Ethylenediamine tetra acetic acid	EDTA
Ethoxy	EtO
Ethyl cellulose	ES
Ethylene glycol adipate	EGA
Phenol formaldehyde	PF
Phenoxy	PhO
Carboxymethyl cellulose	CMA
Casein	CS
Methoxy	MeO
Melamine formaldehyde	MF
Nitrilo triacetic acid	NTA
Octyl decyl phthalate	ODP
Polyamide	PA
Poly butylene terephthalate	PB+P
Poly carbonate	PC
Poly ethylene	PE
Poly propylene	PP
Poly ethylene oxide	PEOX
Poly ethylene terephthalate	PET
Poly methyl methacrylate	PMMA
Poly oxymethylene	POM
Polystyrene	PS
Poly tetrafluoroethylene	PTFE
Polyurethane	PUR
Poly vinyl acetate	PVA
Poly vinyl chloride	PVC
Poly vinylidene chloride	PVDC
Silicon	SI
Styrene/butadiene	S/B
Cellulose acetate	CA
Cellulose nitrate	CN
Cellulose propionate	CP
Tributyl phosphate	TBF
Trifenyl phosphate	TPF
Trimethylchlorosilane	TMCS
Tetrabutyl ammonium hydroxide	TBAH
Tetrahydrofuran	THF
Transdiaminohexanetetraacetic acid	DCTA

13. Instrumental Analysis System Abbreviations

Atomic absorption spectroscopy	AAS
Atomic emission detector	AED
Atomic emission spectroscopy	AES
Atomic fluorescence spectroscopy	AFS
Anodic stripping voltmology	ASV
Capillary electrophoresis	CE
Capillary gel electrophoresis	CGE
Chlorinated hydrocarbons	CHC
Chemical ionization	CI
Chemical luminescence	CL
Cathode ray tube	CRT
Charge transfer detector	CTD
Typovoltammetry	CV
Capillary zone electrophoresis	CZE
Direct plasma flow	DCP
Direct plasma flow mass spectrometry	DCPMS
Differential pulse voltammetry	DPV
Differential scanning calorimetry	DSC
Differential thermal analysis	DTA
Electrothermal atomic absorption	ETAAS
Electron capture detector	ECO
Electron impact	EI
Electromagnetic induction	EMI
Electromagnetic radiation	EMR
Chemical analysis electron spectroscopy	ESCA
Electron spin resonance spectroscopy	ESR
Flame atomic absorption spectroscopy	FAAS
Field ionization spectroscopy	FI
Flame ionization detecto	FID
Fluorescence	FL
Fourier transform	FT
Fourier transform infrared	FTIR
Fourier transform nuclear magnification resonance	FT/MMR
Fourier transform mass spectroscopy	FTMS
Gas chromatography	GC
Gas liquid chromatography	GLC
Gas solid chromatography	GSC
Theoretical plate equivalent height	HETP
High-performance liquid chromatography	HPLC
Ion chromatography	IC
Infrared	IR
Ion selective electrode	ISE
Liquid chromatography	LC
Laser desorption source	LD
Laser microprobe mass spectroscopy	LMMS
Limit of detection	LOD
Mass spectroscopy	MS
Neutron activation analysis	NAA
Near infrared spectroscopy	NIR
Nuclear magnetic resonance	NMR

Ion pair chromatography	PC
Photodiode array	PDA
Photoionization detector	PID
Photomultiplier tube	PMT
Quarz crystal microbalance	QCM
Refractive index detector	RID
Inverse Phase chromatography	RPC
Relative standard deviation	RSD
Sulfur chemical electrode	SCD
Luminescence detector	LD
Saturated calomel electrode	SCE
Supercritical fluid	SCF
Scanning electron microscope	SEM
Supercritical fluid chromatography	SFC
Supercritical fluid extraction	SFE
Standard hydrogen electrode	SHE
Secondary ion mass spectroscopy	SIMS
Scanning tunneling microscope	STM
Thermal analysis	TA
Thermal conductivity detector	TCD
Thermogravimetric analysis	GA
Thermal ionization mass spectroscopy	TIMS
Thin-layer chromatography	TLC
Thermomechanical analysis	TMA
Time-of-flight mass spectroscopy	TOF
Ultraviolet photoelectron spectroscopy	UPS
Ultraviolet	UV
X-ray emission spectroscopy	XES
X-ray fluorescence spectroscopy	XFS
X-Ray fluorescence spectroscopy	XRF
X-Ray photoelectron spectroscopy	XPS
Energy Dispersive X-ray analysis	EDAX

14. Symbols Related to Accelerator/Detector Physics

Luminosity	L
Center of Mass Energy	$\sqrt{s}$
Cross-section	$\boldsymbol{\sigma}$
Emittance	ε
Lorentz Coefficient	γ
Quality Factor	Q_0
Coupling Constant	k_{cc}
Shunt Impedance	R_{sh}
External Quality Factor	Q_{ext}
Fine Structure Constant	α
Rydberg Constant	R_n
Bohr Radius	a_0

NOTE: The symbols and abbreviations above have been prepared using TS 294, TS 295, TS 296, TS 297, TS 1308, TS 1309, TS 1517, TS 1827 and Erdik and Sarıkaya (1997).