

TITLE OF THE THESIS

by

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(everything is in 12 points unless otherwise stated)

Submitted to the Institute of Biomedical Engineering

in partial fulfillment of the requirements

for the degree of

Master of Science

in

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2025

TITLE OF THE THESIS

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DATE OF APPROVAL: 23 June 2008

ACKNOWLEDGMENTS

Type your acknowledgments here.

ACADEMIC ETHICS AND INTEGRITY STATEMENT

I, Adil Deniz Duru, hereby certify that I am aware of the Academic Ethics and Integrity Policy issued by the Council of Higher Education (YÖK) and I fully acknowledge all the consequences due to its violation by plagiarism or any other way.

Name :

Signature:

Date:

ABSTRACT

TITLE OF THE THESIS

Abstract and keywords should be on the same single page. Type your abstract here. Abstract should be a single paragraph not longer than one page and should not contain any references. Please do not override the line spacing to reduce it to single line or to one and a half line in order to accommodate your abstract onto a single page. Instead reduce the size of your abstract by removing some sentences or by rephrasing them in shorter sentences.

Keywords: Tympanic Membrane Temperature, fNIRS, Language Processing, Visual Processing, Be Careful To Write Initials With Uppercase Letters.

ÖZET

TEZİN TÜRKÇE BAŞLIĞI

Türkçe tez özetini buraya yazınız. Özet ve Anahtar Sözcükler aynı sayfada olmalı, tek sayfayı aşmamalı ve referans içermemelidir. Abstract bölümünde belirtilen yazım kurallarının tamamı bu bölüm için de geçerlidir

Anahtar Sözcükler: Çeşitli, Anahtar, Sözcükleri, Buraya, Yazınız, Her Sözcüğün, Baş Harfini, Büyük Yazmayı, Unutmayınız.

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LIST OF SYMBOLS

a_{ij}	Description of a_{ij}
α	Description of α

LIST OF ABBREVIATIONS

AEP	Auditory Evoked Potential
VEP	Visual Evoked Potential

1. L^AT_EX FORMAT FOR THESIS WRITERS

In order to allow the students to write their theses in the official format approved by the Biomedical Engineering Institute, a text style file named **bmetez.sty**, a bibliography style file named **bmetez.bst**, a bibliography source file **bmetez.bib** in BibT_EX format, and an instructions manual file named **bmetez.tex** (L^AT_EX source file of this document) have been provided for the users of L^AT_EX typesetting program. These files can be downloaded from the web page of the Biomedical Engineering Institute at <http://www.bme.bogazici.edu.tr/>.

A good source book for learning more about L^AT_EX is Leslie Lamport's book [1]. There is Comprehensive T_EXArchive Network (CTAN) at the web address <http://www.dante.de> which is an enormous source of software and support for L^AT_EX.

You have to write and format your thesis is to use the L^AT_EX typesetting program which can be accessed in two ways;

You may use the portal **www.overleaf.com** by signing up for an account for yourself and doing all the editing and typesetting using the resources therein.

If you want to install L^AT_EX system on you computer, all you have to do is to follow the guidelines given below:

1. install a L^AT_EX software if it is not available on your computer. For the MS Windows users the following site has a convenient freeware package called MikTeX which can be downloaded from <http://www.miktex.org>.

There is also a user-friendly L^AT_EX editor called Texstudio which can be downloaded from <https://www.texstudio.org/>.

2. after installing your L^AT_EX system and its editor, download the files, **bmetez.sty**,

bmetez.bst, **bmetez.bib** and **bmetez.tex** from the link

<https://bme.bogazici.edu.tr/en/guide-thesis-writers>

3. copy the file named **bmetez.tex** to an empty file in which you will edit your thesis. This is the source file of this manual that you are currently reading as well as a sample file that you will indent your thesis in.
4. when you typeset the file with \LaTeX , the style file will automatically format your thesis to the appropriate form.

WARNING!!!

When using \LaTeX , do not add any additional \LaTeX packages to the **bmetez.tex**. Those packages will very likely conflict with the thesis style and distort the format of your output.

WARNING!!!

Once you finish writing and typesetting your thesis draft, check and correct your document with regard to the items listed in Chapter 2-COMMON MISTAKES COMMITTED BY THESIS WRITERS before submitting your thesis for format control.

1.1 How to insert Figures and Tables in the text

The figures can be inserted in the text in several formats as *ps*, *eps*, *jpg*, *png* etc.. The figures will be referred to as Figure 1.1. The tables will be referred to as Table 2.1.

Commonly made mistakes about Figures are omitting the “.” for terminating the captions and exceeding the page margins from right and bottom.

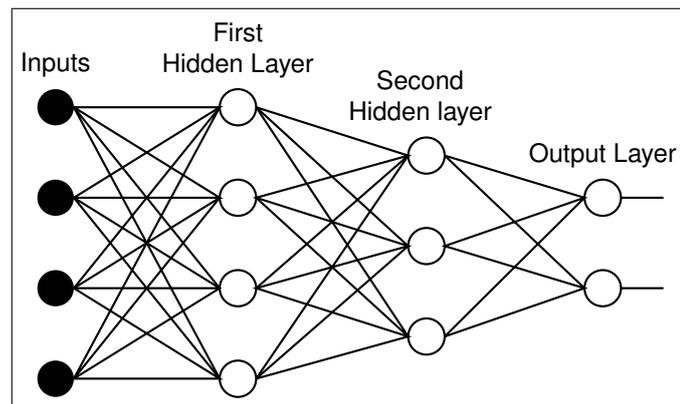


Figure 1.1 Figure Captions will have a font size of 10pts. If the figure caption is longer than a single line, it will wrap to the next lines.

Commonly made mistakes about Tables are omitting the “.” for terminating the captions, exceeding the page margins from right and bottom and using a text font larger than 10pts for the entries inside the table.

Table 1.1

Table captions and the characters in table entries will be in 10 points. If the caption is longer than a single line, it will wrap to the next lines.

	Mean	Minimum	Maximum	Std.Dev
Stimulus peak in dB SPL Left ear	80.79	72	86	%2
Stimulus peak in dB SPL right ear	81.02	78	90	%2.2
TEOAE SNR in dB Left ear	11.35	-1.4	25.0	%49.4
TEOAE SNR in dB right ear	12.09	-1.4	26.0	%46.8

1.2 How to insert Equations in the text

Each equation ought to have an equation number and the equations will be referred to as Eq. 1.1.

$$x = D \cdot \sin \phi \cdot \cos \theta \quad (1.1)$$

where $y = D \cdot \sin \phi \cdot \sin \theta$, $z = D \cdot \cos \phi$ and $D = \sqrt{x^2 + y^2 + z^2}$, $\phi = \arctan(y/x)$, $\theta = \arccos(z/D)$.

The easiest way of editing the references is to use the BibT_EX package. The referred items are edited in a file called bmetez.bib. For editing the BibT_EX entry for website addresses, the reference is given as a book, as a journal article, as a conference proceeding etc. with an additional note of **Available: site/path/file** given in the **NOTE** field of each bibliographic item. Each reference must be given a label to be used for citing in the text. The formatted references as books [1], the journal articles [2], the technical reports [3], the book chapters [4], the theses [5, 6], the edited books [7, 8], and the website addresses [9] are exemplified in the References. Multiple references in series can be cited as [5]-[7].

1.3 List of publications produced from the thesis

1. Investigaton of the neuronal efficacy and EEG source power under steady-state visual stimulation, A. D. Duru, S. B. Erdogan, I. Kasikci, A. Bayram, A. Ademoglu, T. Demiralp, " *Engineering in Medicine and Biology Society, EMBC, 2011 Annual International Conference of the IEEE*, Vol. 4, pp. 6576-6579, Aug. 30-Sept. 3, 2011.
2. Source Localization of Subtopographic Brain Maps for Event Related Potentials (ERP) A. D. Duru, A. Bayram, T. Demiralp, A. Ademoglu, *Encyclopedia of Healthcare Informations Systems*, Vol. 3, pp: 1247-1252, 2010.
3. Analysis of brain electrical topography by spatio-temporal wavelet decomposition A. D. Duru, A. Ademoglu, T. Demiralp, *Mathematical and Computer Modelling*, Vol. 49, pp. 2224-2235, 2009.

2. COMMON MISTAKES COMMITTED BY THESIS WRITERS

!!!! Please read this Chapter carefully and correct your thesis draft according to the items stated below, before sending in for final format control prior to printing !!!!

1. WRONG

B.Sc., Biomedical Engineering, Başkent University

or

B.S., Biomedical Engineering, Başkent University

CORRECT

B.S., in Biomedical Engineering, Başkent University

2. In the cover page the full titles of jury members must be written.

WRONG

Prof. Burak Güçlü

Assc. Prof. Dr. Duygu Ege

Asst. Dr. Mustafa Kemal Ruhi

CORRECT

Prof. Dr. Burak Güçlü

Assoc. Prof. Dr. Duygu Ege

Assist. Prof. Mustafa Kemal Ruhi

3. ABSTRACT and Keywords must all be placed in a single page. The same is true for ÖZET and Anahtar Kelimeler. Do not override the default line spacing in order to accomodate a rather long abstract onto a single page. Instead reduce the number of sentences or rephrase them in a shorter way. Make sure that there

will not be any empty page right after the ABSTRACT or ÖZET page which will indicate that these sections are not shortened enough.

The initial letter of each keyword and anahtar kelime should have to be uppercase like Convolutional Neural Networks.

4. Academic Ethics Statement page will be in its place.
5. Figure/table captions will be terminated by “.”
6. Citations will be separated by comma without spacing ; ex: [15],[17]
7. Font size of the text in Tables will 10pts or footnotesize.
8. When equations are referred
 WRONG
 equation (2.1)
 CORRECT
 Eq. 2.1
9. When there is a citation at the end of the sentence, it will be placed before the
 “.”
 WRONG
 where smallest error was present. [45].
 CORRECT
 where smallest error was present [45].
10. In the reference list, initial letters of the journal names will be in capital
 WRONG
 Nature neuroscience
 CORRECT
 Nature Neuroscience
11. The sizes of the Tables and Figures will not exceed the right or bottom margin of the page like below

Table 2.1

Table captions and the characters in table entries will be in 10 points. If the caption is longer than a single line, it will wrap to the next lines.

	Mean	Minimum	Maximum	Std.Dev
Stimulus peak in dB SPL Left ear	80.79	72	86	%2
Stimulus peak in dB SPL right ear	81.02	78	90	%2.2
Transient Evoked Otoacoustic Emissions SNR in dB Left ear	11.35	-1.4	25.0	%49.4
Transient Evoked Otoacoustic Emissions SNR in dB right ear	12.09	-1.4	26.0	%46.8

12. You have to check carefully the reference lists given in BMETEZ.pdf and BME-TEZ.BIB to format the references properly. Usually, the thesis writers commit errors in references. If the number of authors in a publication is more than four, then type just the first four author names and type “et al.” for the rest of the authors.

13. When tables and figure are referred,

WRONG

Fig. 2.1 or Tab 2.1

CORRECT

Figure 2.1 or Table 2.1

14. Chapter titles will be Upper case

WRONG

1.Introduction

CORRECT

1. INTRODUCTION

15. Thesis titles will be Upper case

WRONG

My Thesis Is Estimation

CORRECT

MY THESIS IS ESTIMATION

16. Books will be cited as specified in BMETEZ.PDF with initial letters of the titles to be in capital letters such as

Lamport, L., *A Document Preparation System LATEX*, New York: Addison-Wesley, 2nd ed., 1994.

If the author names are more than three you cite is as in reference [10].

17. In order to print words or letters in a reference in uppercase, they must be enclosed by {} in the bibliography entry of the reference in the bibtex.bib file.

WRONG

Peretz, O., "Naive bayes classifier-an ensemble procedure for mri and eeg data," *Engineering Applications of Artificial Intelligence*, Vol. 136, p. 108972, 2024.

CORRECT

Peretz, O., "Naive Bayes classifier-an ensemble procedure for MRI and EEG data," *Engineering Applications of Artificial Intelligence*, Vol. 136, p. 108972, 2024.

18. **COMMON MISTAKES MADE ABOUT THE FIGURES (see the explanations in the caption of Figure 2.1)**

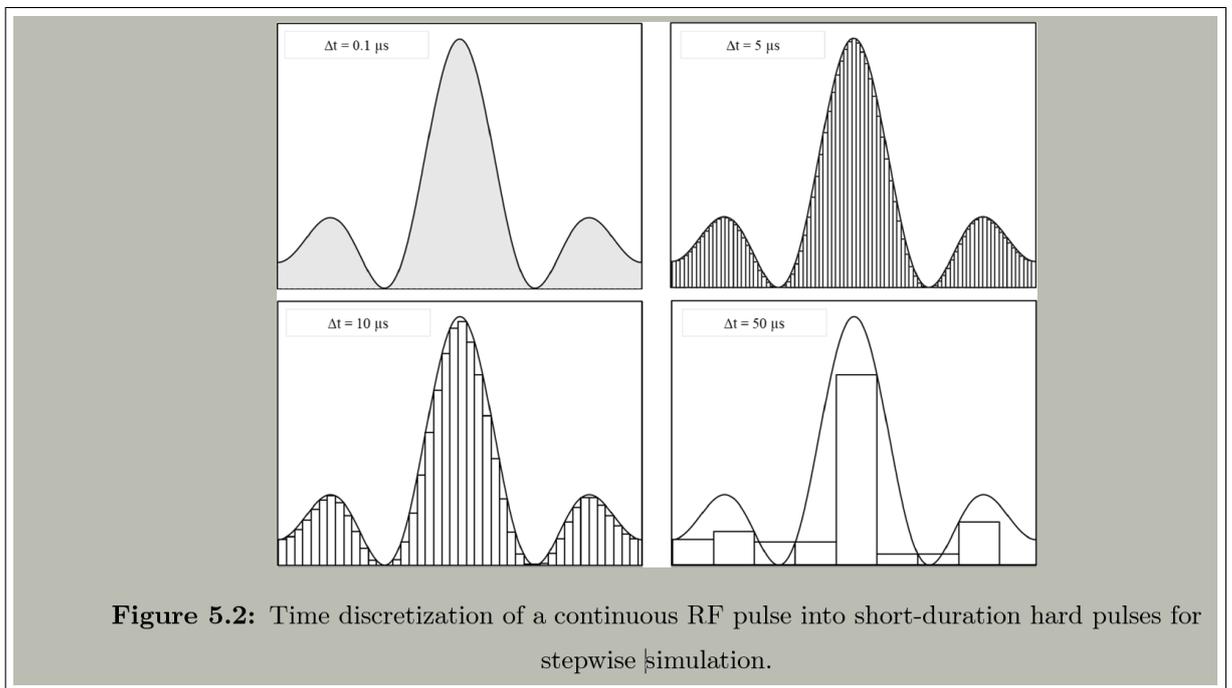


Figure 2.1 The text and legends in the figure should not be so small that they are not legible. Also the caption should be left justified. The page margins should not be exceeded. Figure keyword should look as **Figure 5.2** instead of **Figure 5.2 :**

APPENDIX A. TITLE OF THE FIRST APPENDIX

The appendices start here.

A.1 Appendix Section Heading

The Appendix section starts here.

A.1.1 Appendix Subsection Heading

The Appendix subsection starts here.

A.1.1.1 Appendix subsubsection heading. The Appendix subsubsection starts here.

The line spacing specifications between the paragraphs and headings for the appendix sections will be the same as those of the regular text sections.

REFERENCES

1. Lamport, L., *A Document Preparation System L^AT_EX*, New York: Addison–Wesley, 2nd ed., 1994.
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9. Jones, J., *Networks, 2nd ed.*, Boca Raton: CRC, 1991. Available: <http://www.atm.com>.
10. Ozyoruk, K. B., S. Can, B. Darbaz, and *et al.*, “A deep-learning model for transforming the style of tissue images from cryosectioned to formalin-fixed and paraffin-embedded,” *Nature Biomedical Engineering*, pp. 1–13, 2022.