LaTeX THESIS TEMPLATE: AN UNOFFICIAL VERSION α–0.1

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A THESIS SUBMITTED TO
VIDYASIRIMEDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN INFORMATION SCIENCE AND TECHNOLOGY
2023

Title:	LaTeX Thesis Template: An Unofficial Version α–0.1
Advisor:	Asst. Prof. Dr. Advisor Name
Name:	Mr. Author Name
Program:	Doctor of Philosophy Program in Information Science and Technology (International Program)

Examination Date 10 October 2023

Vidyasirimedhi Institute of Science and Technology approved this thesis as a partial fulfillment of the requirements for the degree of Doctor of Philosophy in Information Science and Technology.

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LaTeX Thesis Template: An Unofficial Version α–0.1

Abstract

Author Name

This abstract presents a dummy content block intended to simulate a real thesis abstract. It spans multiple paragraphs and includes enough text to overflow onto the second page. The purpose of this demonstration is to observe how LaTeX handles hanging indents and vertical spacing, especially in custom environments such as keywords.

Keywords: LaTeX formatting, thesis template, abstract layout, hanging indent, vertical spacing, custom environments.

Acknowledgment

I would like to express my sincere gratitude to everyone who has supported me throughout this journey.

First and foremost, I am deeply thankful to my advisor, Dr. Jane Smith, for her invaluable guidance, constructive feedback, and constant encouragement. Her mentorship has been instrumental in shaping both the direction of this research and my development as a researcher.

I am also grateful to the members of the Computational Intelligence Lab for the stimulating discussions, technical assistance, and collaborative spirit that made every challenge more manageable and every success more rewarding.

Special thanks to my friends and colleagues, whose humor, advice, and moral support helped me maintain perspective during stressful times.

Lastly, I owe my deepest appreciation to my family for their unwavering belief in me. Their love and patience provided the foundation that carried me through the ups and downs of graduate life.

This work would not have been possible without all of you.

Author Name
10 October 2023

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List of Abbreviations

EEG	Electroencephalogram
MI	Motor Imagery
CNN	Convolutional Neural Network
H_2O	Water
DBU	1,8-Diazabicyclo [5.4.0]-7-Undecene

Chapter 1

Introduction

1.1 Motivating Problem

This is the research motivation

1.2 Contributions

This thesis makes the following key contributions:

- We introduce a novel experimental paradigm.
- We propose a novel algorithm.

1.3 Outline

This thesis is divided into three major parts.

Chapter 2: This chapter provides a comprehensive background

Chapter 3: This chapter investigates

Chapter 4: This chapter investigates

Chapter 5: This chapter summarizes the key findings and contributions of the thesis

Appendix A: This appendix provides additional details on the experimental setup and data analysis methods used in this thesis.

Chapter 2

Background

2.1 Heading

This is a paragraph under the main section. It introduces the overall content of the section in a general manner.

2.1.1 Sub-heading

This is a subparagraph under the first subsection. It provides additional detail or clarification related to the subsection's topic.

2.1.1.1 Second-level Sub-heading

This is a subsubparagraph under the second-level subheading. It is typically used for listing or elaborating fine-grained points.

1) This is the first item in the enumerated list.
2) This is the second item in the enumerated list.
3) This is the third item in the enumerated list.

2.2 Equation

As an illustration of LaTeX's mathematics formatting, Equation 2.1 is the definition of *Rényi entropy* and Equation 2.2 is the total loss function:

$$H_\alpha(X) = \frac{1}{1-\alpha} \log \left(\sum_{x \in \mathcal{X}} P[X = x]^\alpha \right). \tag{2.1}$$

$$\mathcal{L}_{\text{total}} = \frac{1}{N}\sum_{i=1}^{N}\{w_i\mathcal{L}_i\}. \tag{2.2}$$

2.3 Algorithm

This is an example of Algorithm 2.1.

Algorithm 2.1 An algorithm with caption.

Require: $n \geq 0$
Ensure: $y = x^n$
$y \leftarrow 1$
$X \leftarrow x$
$N \leftarrow n$
while $N \neq 0$ **do**
    if N is even **then**
        $X \leftarrow X \times X$
        $N \leftarrow \frac{N}{2}$ ▷ This is a comment
    else if N is odd **then**
        $y \leftarrow y \times X$
        $N \leftarrow N - 1$
    end if
end while

2.4 Table

LaTeX table generators, such as TablesGenerator.com[1], can help you easily create well-formatted tables. Here, Table 2.1 is an example of a table generated using the tool.

Table 2.1 Classification performance. An asterisk (*) indicates values that are significantly different from the others ($p < 0.05$).

Comparison Model	**Subject-independent**	
	Accuracy ± SD	**F1-score ± SD**
FBCSP-SVM	64.96 ± 12.70	65.25 ± 15.14
Deep Convnet	68.33 ± 15.33	70.20 ± 15.18
EEGNet-8,2	68.84 ± 13.87	70.39 ± 14.30
Spectral-Spatial CNN	68.27 ± 13.56	65.86 ± 17.37
MIN2Net	**72.03 ± 14.04***	**72.62 ± 14.14***

[1] https://www.tablesgenerator.com/

2.5 Figure

2.6 Figure

Here are examples of figures in a thesis: Figure 2.1 illustrates a standard image inclusion, while Figure 2.2 shows a chemical reaction diagram generated with `chemfig`.

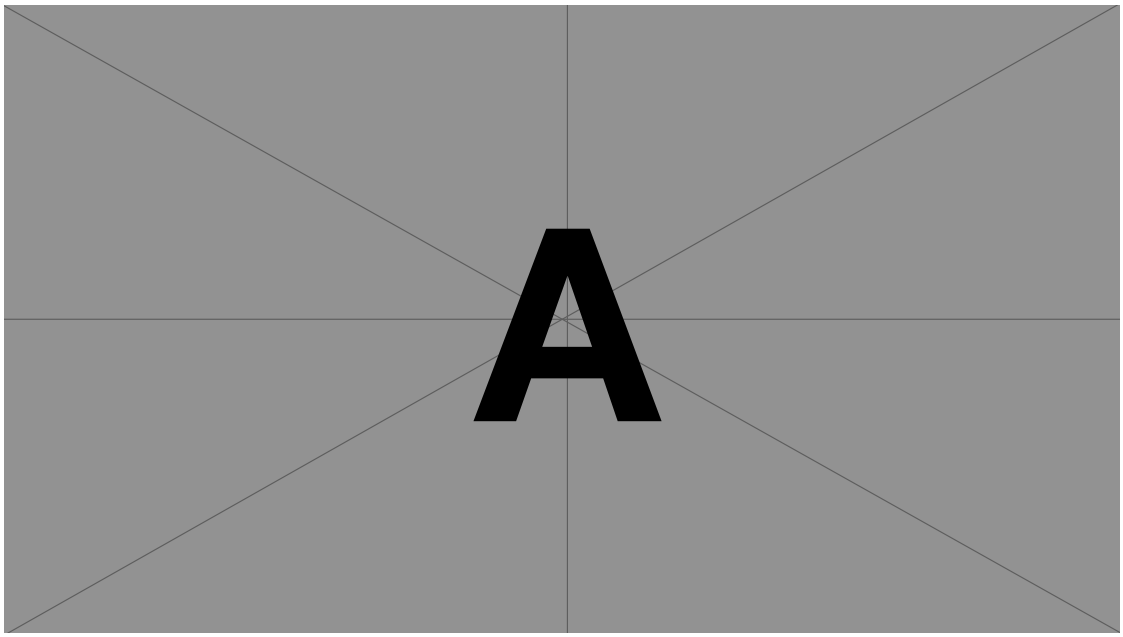

Figure 2.1 This is a long figure caption example for an image. This figure demonstrates how to include a standard image (e.g., PDF, PNG, JPG) into your document. Captions longer than one line should be aligned left and indented after the first line.

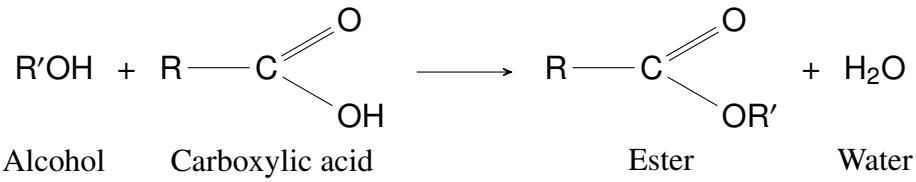

Figure 2.2 An esterification reaction illustrated using the `chemfig` package.

2.7 Citation

This is an example of how to cite previous work, such as [1], or multiple sources like [2–4]. Ensure that the corresponding BibTeX entries are added to the `bibliography.bib` file before citing.

Below is an example BibTeX entry:

```
@ARTICLE{dummy2022example,
  author  = {Doe, John and Smith, Jane and Roe, Richard},
  journal = {Journal of Example Studies},
  title   = {A Dummy Title for Demonstration Purposes},
  year    = {2022},
  volume  = {42},
  number  = {1},
  pages   = {1--10}
}
```

2.8 Footnote

I'm writing to test the `\footnotemark` and `\footnotetext` commands. You can insert a footnote marker using the `\footnotemark`[2] command and later, when you're ready, typeset the footnote text by writing `\footnotetext{Here's the footnote.}`.

Let's do one more to see the result[3] which I'll comment on within the footnote.

[2] Here's the footnote.

[3] Specifically, I'd write comments in this one.

Chapter 3

Investigation 1

3.1 Section 1

This section presents

Chapter 4

Investigation 2

4.1 Section 1

This section presents

Chapter 5

Conclusion

The conclusion of this thesis.

References

1. Author O, Author T, and Author F. A Placeholder Title for Demonstration Purposes. **Journal of Placeholder Research** 2022;99(9):100–10.
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3. Author F, Author B, and Baz A. Simulated Study on EEG Activity in Hypothetical Conditions. **Journal of Experimental Interfaces** 2020;55(8):8888–99.
4. Author O, Author B, and Author G. Sample Article on Deep Learning for EEG. **Journal of Artificial Neuroscience** 2017;12(4):321–40.

Appendix A

Proofs for Chapter 3

A.1 Proof of Lemma

Author's Biography

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Academic Publication:	Author O, Author T, and Author F. A Placeholder Title for Demonstration Purposes. **Journal of Placeholder Research** 2022;99(9):100–10.
	Author O, Author B, and Author G. Sample Article on Deep Learning for EEG. **Journal of Artificial Neuroscience** 2017;12(4):321–40.
	Author R, Author O, and Author B. **A Sample Conference Paper on Face Recognition**. In: Proceedings of the International Conference on Vision Research. 2015:101–10.