



LATEX THESIS TEMPLATE: AN UNOFFICIAL VERSION–V0.0.1

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L^AT_EX Thesis Template: An Unofficial Version–v0.0.1

Abstract

Author Name

My abstracts

Keywords: My keyword No. 1, My keyword No. 2, My keyword No. 3, My keyword No. 4, My keyword No. 5.

Acknowledgment

I wish to express my greatest gratitude to my advisor.

Author Name
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List of Abbreviations

EEG	Electroencephalogram
MI	Motor Imagery
CNN	Convolutional Neural Network
H ₂ O	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

Chapter 2

Background

2.1 Heading

The chapter headings should be 14 points and any other titles should be in 12 points. The text in the chapter body should be computer printed in 12 points Times New Roman font.

2.1.1 Sub-heading 1

Typing should be with a spacing of 1.5 between lines, including the List of References and Appendices.

2.1.1.1 Sub-heading 2

Subheading 2 provides an example of items presented in an enumerated list.

- 1) Enumerate One
- 2) Enumerate Two
- 3) Enumerate Three

2.2 Algorithm

This is an example of Algorithm 2.1.

2.3 Equation

As an illustration of L^AT_EX's mathematics formatting, Equation 2.1 is the definition of *R  nyi entropy* and Equation 2.2 is the total loss function:

Algorithm 2.1 An algorithm with caption.

Require: $n \geq 0$
Ensure: $y = x^n$

```
1:  $y \leftarrow 1$ 
2:  $X \leftarrow x$ 
3:  $N \leftarrow n$ 
4: while  $N \neq 0$  do
5:   if  $N$  is even then
6:      $X \leftarrow X \times X$ 
7:      $N \leftarrow \frac{N}{2}$                                  $\triangleright$  This is a comment
8:   else if  $N$  is odd then
9:      $y \leftarrow y \times X$ 
10:     $N \leftarrow N - 1$ 
11:   end if
12: end while
```

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

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

2.4 The table numbers

The table numbers shall represent the chapter numbers. For example, the first table in the Chapter 2 shall be “Table 2.1”, etc. The number and title of a table (Table caption) should be placed ABOVE the table and aligned left. The word “Table 2.1” is **bold** font except its caption.

Table 2.1 Classification performance.

Comparison Model	Subject-independent	
	Accuracy \pm SD	F1-score \pm 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

2.5 The figure numbers

The figure numbers shall represent the chapter numbers. For example, the first figure in Chapter 2 shall be “Figure 2.1”, etc. the number and title of a figure (Figure caption) should be placed BELOW the figure. For the figure caption which contains only 1 line, it should align CENTER throughout the thesis. For the figure caption which contains more than 1 line, it should align left throughout the thesis. The figure format should be pdf, png, jpg or \chemfig as Figure 2.2

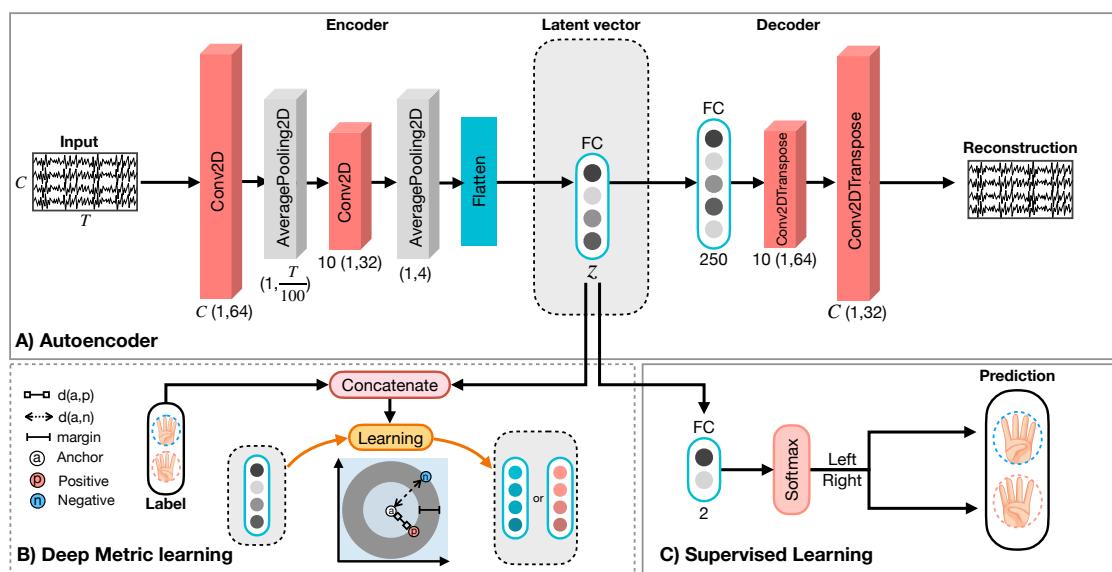


Figure 2.1 The MIN2Net model architecture. An overview of the MIN2Net model architecture. The figure illustrates the sequence of processing blocks, including the temporal convolutional layers, feature extraction modules, and classification layers. Each component is annotated to reflect its role in the end-to-end EEG signal processing pipeline.

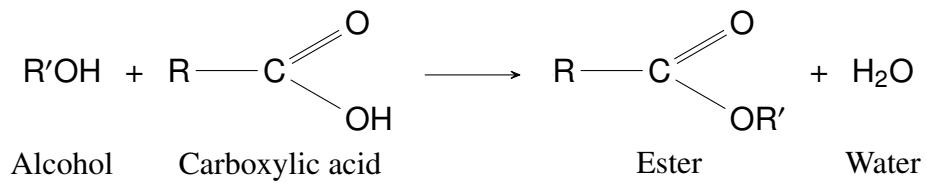


Figure 2.2 The caption on this figure, the second and other lines need to be aligned with the first letter of the first line.

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. Autthasan P, Chaisaen R, Sudhawiyangkul T, Rangpong P, Kiatthaveephong S, Dilokthanakul N, et al. MIN2Net: End-to-End Multi-Task Learning for Subject-Independent Motor Imagery EEG Classification. **IEEE Transactions on Biomedical Engineering** 2022; 69:2105–18
2. Schirrmeister RT, Springenberg JT, Fiederer LDJ, Glasstetter M, Eggensperger K, Tangermann M, et al. Deep learning with convolutional neural networks for EEG decoding and visualization. **Human Brain Mapping** 2017; 38:5391–420

Appendix A

A.1 Additional Results

Additional results

Author's Biography

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