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BY

AUTHOR'S NAME
Author's degree, year

THESIS

Submitted as partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Electrical and Computer Engineering
in the Graduate College of the
University of Illinois at Chicago, 2022

Chicago, Illinois

Defense Committee:

Member 1, Chair and Advisor
Member 2
Member 3
Member 4
Member 5, Affiliation

To myself,

the only person worthy of my company

ACKNOWLEDGMENTS

It is very customary to thank people who helped you finish your project/thesis. People usually include their advisers, their committee members, teammates, friends/colleagues and family members. Try to make your acknowledgments personal and specific.

Remember to include your initials at the right side of the page and about 1.5 inches below the text (as follows).

AN

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June 22, 2022

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CHAPTER **PAGE**

LIST OF TABLES

LIST OF FIGURES

LIST OF ALGORITHMS

LIST OF ABBREVIATIONS

LOL	Laugh Out Loud
LMAO	Laughing My Ass Off
UIC	University of Illinois at Chicago

NOTATIONS

Bold lowercase letters are used to denote the vectors and bold uppercase letters for matrices. The following mathematical notations are used throughout this thesis:

$\|x\|$	the absolute value of a scalar x
$\boldsymbol{x}_m(k)$	the k^{th} element of vector $\boldsymbol{x}_m$
$[\boldsymbol{X}]_{i,j}$	the $(i,j)^{\text{th}}$ element of matrix $\boldsymbol{X}$
$\|\boldsymbol{x}\|_p$	the l_p-norm of $\boldsymbol{x}$, defined as $(\sum_k \|\boldsymbol{x}(k)\|^p)^{\frac{1}{p}}$
j	the imaginary unit *i.e.*, $j = \sqrt{-1}$

SUMMARY

Briefly describe your project and your contribution here.

CHAPTER 1

INTRODUCTION

This template was created mainly to keep things organized. In terms of design rules, it closely follows the UIC ECE thesis template. Although it was created in 2019, design rules may change in the future. So you might need to update the contents in the 'bin' folder and modify some lines in the code. However, otherwise you don't need to touch the 'bin' folder. Some important things to keep in mind,

1. use '\CHID_' to label everything, so that you can refer anything from anywhere without worrying about duplicate labels. Follow the examples in the below.
2. Every paper in the 'papers' folders has a 'figures' folder inside it. Put figures in the corresponding 'figures' folder.
3. Put appendices in appendices.tex with appropriate CHID.
4. Good luck!

1.1 Use of CHID

Notice how the content is being referred outside the its own chapter.

- Figure 1 is in the Chapter 1.
- Figure 2 is in the Chapter 2.
- Figure 3 is in the Chapter 3.

- Figure 4 is in the Chapter 4.
- Figure 5 is in the Chapter 5.
- Figure 6 is in the Chapter 6.

You can use CHID when referring to the content inside its own chapter, but you need to use the code if you want to use it outside. The benefit is that you can use duplicate label names in a different chapter, but as you are using CHID, the it will be labeled differently. Use the CHID defined for the chapter in the corresponding chapter.tex in 'sources' folder. Generate new codes if need be.

This is a paragraph with a name.

1.2 Bibliography

Keep all your bibtex in 'bibphd.bib' file in the 'sources' folder. Unique identifier is needed *e.g.*, `\cite{grant2014cvx, einstein1905zur}` [1, 2] .

1.3 Extra contents

1.3.1 Figures

An example figure is shown in Figure 1.

1.3.2 Tables

An example table is shown in Table I.

1.3.3 Algorithms

An example table is shown in Algorithm 1.

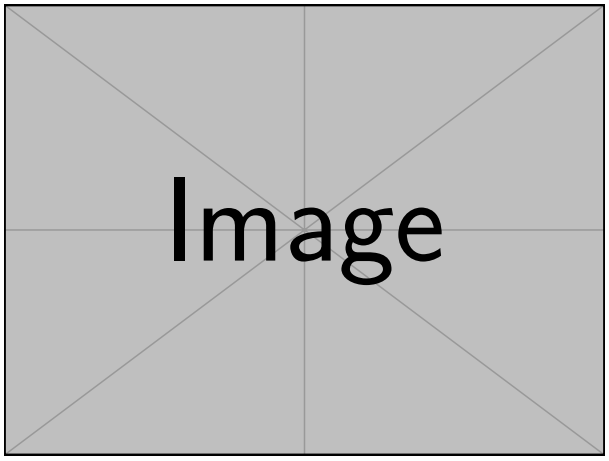

Figure 1. A generic example figure

TABLE I

AN EXAMPLE TABLE

Notation	Title A	Title B
P_{Text}	Some text	Some more text
S_{Text}	Some text	Some more text
S_{Text}	Some text	Some more text

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Algorithm 1 ExampleAlgorithm

Require: `var1`, `var2`, N
Ensure: `var1` $\leftarrow 1$, `var2` $\leftarrow 1$, `flag` $\leftarrow 0$
Input: `var1`, `var2`, N
Initialize: `var1` $\leftarrow 1$, `var2` $\leftarrow 1$, `flag` $\leftarrow 0$
Output: `var3` ▷ All five commands are equally valid

```
repeat                                              ▷ Example: repeat
    SomeSteps
until SomeConditionIsMet
for i = 0 to 10 do                                  ▷ Example: for loop
    SomeStepsForLoop
end for
while flag do                                       ▷ Example: while loop
    var1 ← DoSomeShit
    var2 ← DoSomeMoreShit
end while
loop                                                ▷ Example: loop
    SomeInfiniteLoopStuff
end loop
if var1 < N then                                    ▷ Example: if-else if- else
    flag ← 1
else if var1 = N then
    flag ← 0
else
    var3 ← var1 + var2
end if
print some results
return var3
```

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Part I

Part I

I-A

Subpart I A

CHAPTER 2

PAPER I TITLE

Overview: Write abstract here.

Keywords: Write keywords here

2.1 Introduction

1. put figures in 'figures' folder
2. use '\CHID_' to label stuffs
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4. chapter-wise citation [3]

Parts of this chapter is taken from published journal article

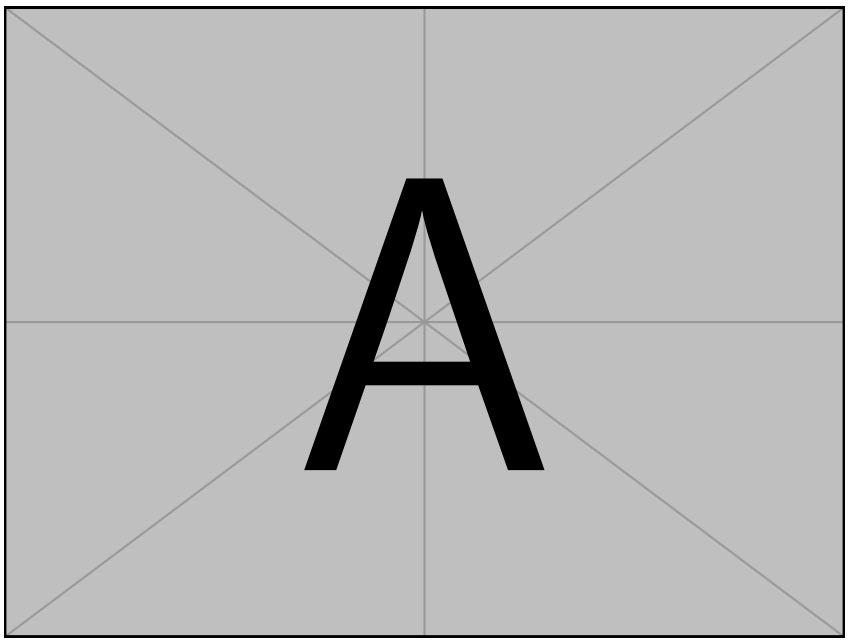

Figure 2. The example figure A

I-B

Subpart I B

CHAPTER 3

PAPER II TITLE

Overview: Write abstract here.

Keywords: Write keywords here

3.1 Introduction

1. put figures in 'figures' folder
2. use '\CHID_' to label stuffs
3. put appendices in appendices.tex with appropriate CHID
4. chapter-wise citation [4]

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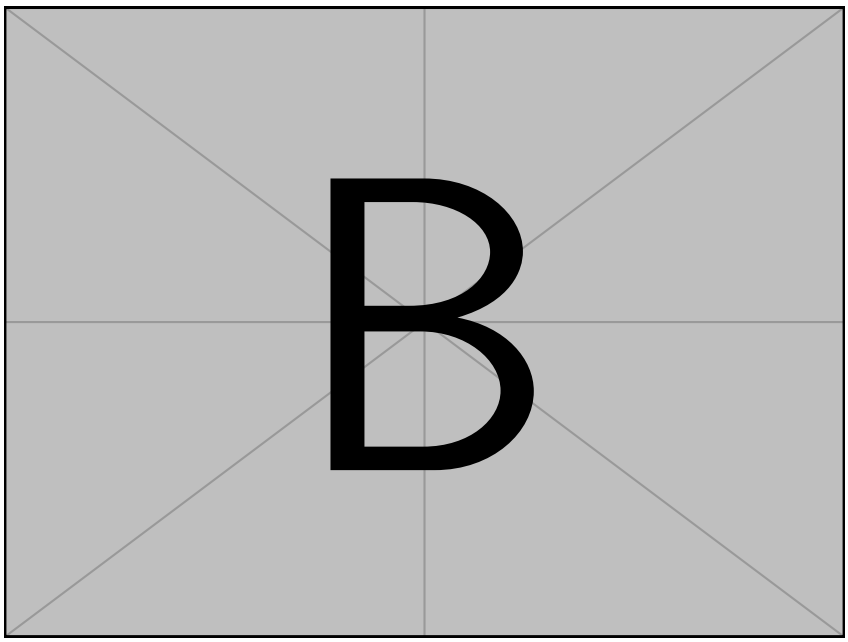

Figure 3. The example figure B

Part II

Part II

II-A

Subpart II A

CHAPTER 4

PAPER III TITLE

Overview: Write abstract here.

Keywords: Write keywords here

4.1 Introduction

1. put figures in 'figures' folder
2. use '\CHID_' to label stuffs
3. put appendices in appendices.tex with appropriate CHID
4. chapter-wise citation [5]

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parts of this chapter is taken from published journal article

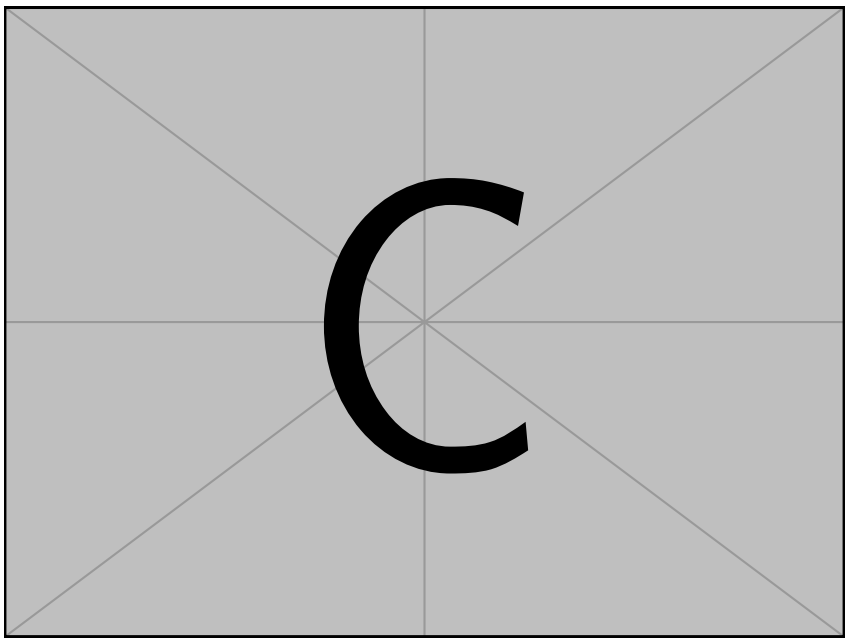

Figure 4. The example figure C

II-B

Subpart II B

CHAPTER 5

PAPER IV TITLE

Overview: Write abstract here.

Keywords: Write keywords here

5.1 Introduction

1. put figures in 'figures' folder
2. use '\CHID_' to label stuffs
3. put appendices in appendices.tex with appropriate CHID
4. chapter-wise citation [6]

Parts of this chapter is taken from published journal article

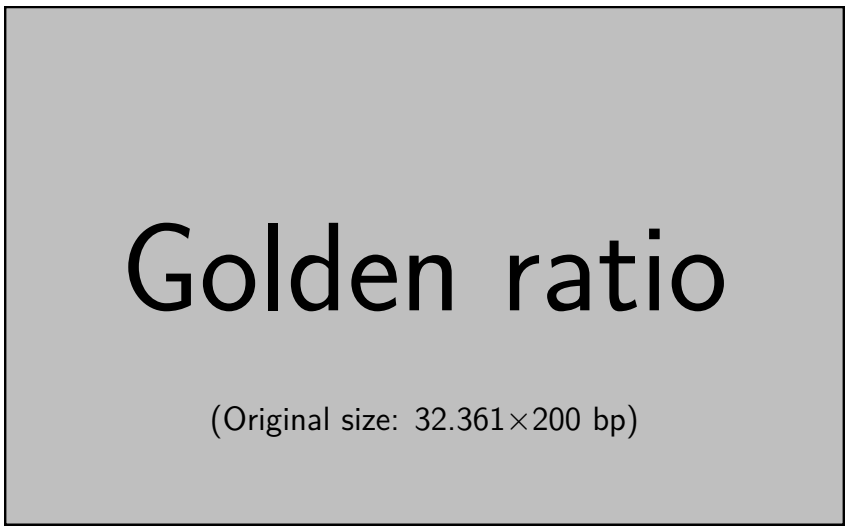

Figure 5. The example figure with golden ratio as aspect ratio $\phi = \frac{1+\sqrt{5}}{2}$

II-C

Subpart II C

CHAPTER 6

PAPER V TITLE

Overview: Write abstract here.

Keywords: Write keywords here

6.1 Introduction

1. put figures in 'figures' folder
2. use '\CHID_' to label stuffs
3. put appendices in appendices.tex with appropriate CHID

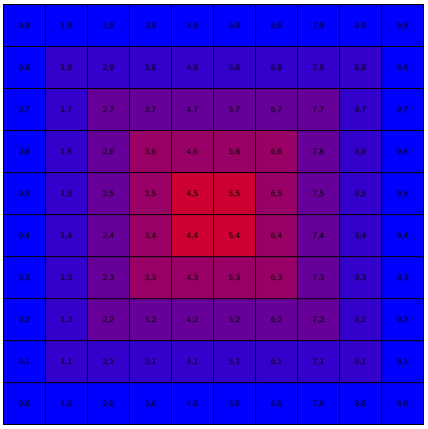

Figure 6. The example figure with grid 100x100pt

Parts of this chapter is taken from published journal article

CHAPTER 7

CONCLUSION

A conclusion is a good thing to have. Hopefully it is a good one!

APPENDICES

Appendix A

Proof of convergence

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Appendix B

Time-complexity analysis of the Algorithm

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Appendix C

Proof

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Appendix D

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Appendix D (Continued)

CITED LITERATURE

1. Grant, M. and Boyd, S.: CVX: Matlab software for disciplined convex programming, version 2.1. `http://cvxr.com/cvx`, March 2014.

2. Einstein, A.: Zur elektrodynamik bewegter körper. Annalen der Physik, 322(10):891–921, 1905.

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6. Pearl, J.: Probabilistic Reasoning in Intelligent Systems: Networks of Plausible Inference. San Francisco, CA, USA, Morgan Kaufmann Publishers Inc., 1988.

VITA

AUTHOR'S NAME

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