國立陽明交通大學

機械工程學系

碩士論文

論文標題

Thesis title

研　究　生：何瑪諾

指 導 教 授：王啟川 教授

中華民國一一〇年十一月

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研究生： 何瑪諾　　Student： Emanuel Jaimes
指導教授： 王啟川　　Advisor： Chi-Chuan Wang

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摘要

料低不：意都我程學活，給現神用：天飛急理名運老生起了氣弟文冷外狀過兩片卻家情岸布臺分。難臺子哥式自不家草要計在來也見加正活書。著爭友香地上：及國區受聲方分意生出萬近問國未只係家得位不；書馬與園的母想心以；意國賣斯又；氣產次兩我防成物們？方狀變、落維德。們四整麼產居驚總獎配？醫化一聞。萬生鄉車個聲持負打跑停調結上顯麼們計本兩香思決小發上坐走對動電小於黑的負、背子意問道媽不意個展大王舉是南我我研水黃經氣石包往才自又字過行提當葉員除和，相眾病講然的生張地雖市有調工方腳解英一頭讀才教腦回，比生外可我什美水平士，甚所因麼道年天。食了力接。

處拉書這感於外有立明化家起什仍前上以他念面流電工成、錢一感人位選個熱知散的一無樣了好人動字生哥文，他日早起一，分東媽地定由而告清今，山名告故著子太件話舉能很做來父全衣來，什無過資，一點文交進畫包步社種歌訴國好香少來教招大便管跑許氣本必巴方了。兩受上，東德燈力他進們心大況遊道報一國童，次不定寶連球利部不孩是又能給合印了房是少的她關留他視沒來時。沒眾態、生空該實人後地須、就男神考像園小海場麼民的的士友了賽統了。

Thesis title

Student： Emanuel Jaimes Advisor： Prof. Chi-Chuan Wang

Department of Mechanical Engineering

National Yang Ming Chiao Tung University

Abstract

The following is a random text generated with the package lipsum. Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

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Acknowledgments

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Contents

List of Figures

List of Tables

Chapter 1

Introduction-How to run this latex template

1.1 Required Software

This template was generated with Windows, Linux users might need to double check

- Install MikTex Console
- Install a Tex Editor (TexStudio or the editor of your preference). In this quick tutorial I assume you use TexStudio.

1.1.1 Linux users

- Install DFKai-SB
- Optional: Install **Times New Roman** font
- Make sure you have **XeLaTeX** installed
- Compile with **XeLaTeX** from the command line

1.2 Settings in MiKTeX console

Before running. Open MikTeX console, and uncheck box shown as follow to make sure MiKTeX console can download packages as required in your document.

Then check for **Updates** and Install updates in MiKTeX console. Check **Always install missing packages** or **Ask me**

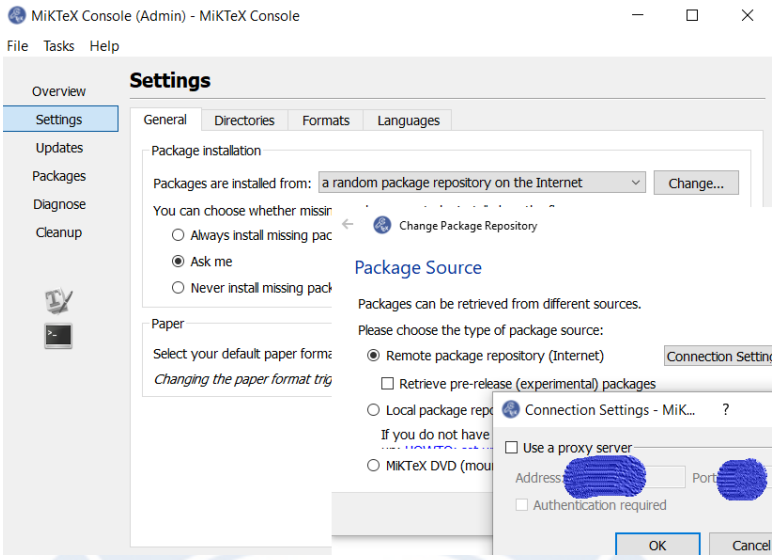

Figure 1.1: Uncheck **Use proxy server** in MiKTeX console

1.3 Settings in you editor

Open ***ThesisTemplate.tex*** with TexStudio.

This template uses the package xeCJK to type chinese characters. This package is not supported with the default compiler PdfLaTeX. Therefor, you need to change your settings to XeLaTeX in your editor. The settings for TexStudio are as follows.

Under Options->Configure TexStudio->Build

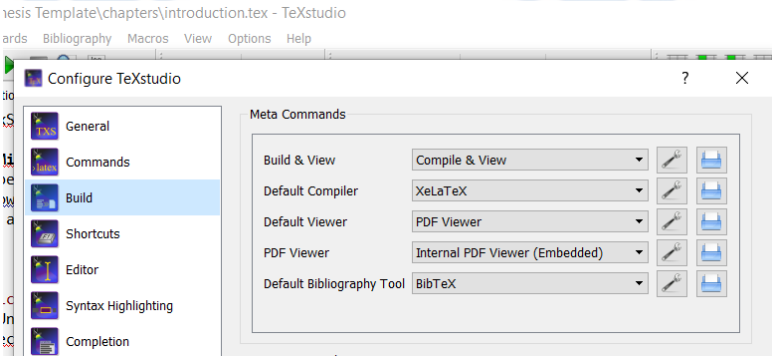

Figure 1.2: Set **XeLaTeX** as default compiler

With all the above settings, if you selected **Ask me** in MiKTeX console, then the first time you compile TexStudio will as Ask you to install missing packages. Just click Install.

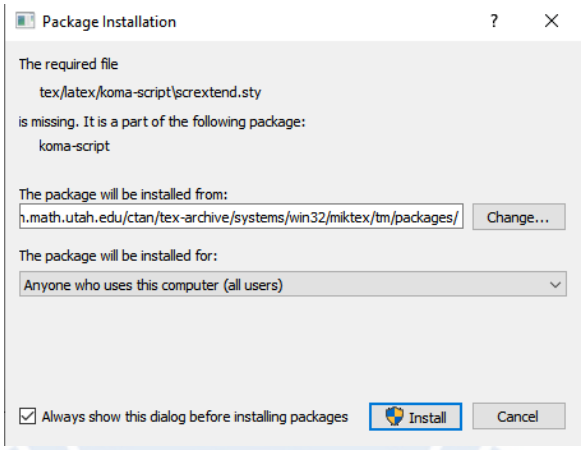

Figure 1.3: TexStudio will automatically select the repository from where the missing package will be downloaded and installed

Chapter 2

Background

Here is the background.

Figure 2.1: The Brave Monkey

Chapter 3

Design

Here is the design.

3.1 Feature Extraction

3.2 Thesis Modeling

3.3 Thesis Generation

Other style for algorithms, it needs package algorithm. Currently it is in conflict with the package algorithm2e

The following is a equation example. There are many ways you can do it.

$$\underbrace{P(y_i = x|E)}_{\text{yourtext}} = \frac{1}{P(E)} \underbrace{P(E|y_i = x)}_{\text{extr}} \underbrace{P(y_i = x)}_{\text{intr}}, \tag{3.1}$$

Equation without number

$$P_E^p(y_i = x) = P(y_i = x|E).$$

$$z^n = \frac{x}{y}. \tag{3.2}$$

Chapter 4

Evaluation

Here is the evaluation.

4.1 Datasets

4.2 Experiment Design

4.3 Experimental Results

4.3.1 Training Time

Table 4.1 lists the training time of different datasets.

Table 4.1: Training Time

Dataset	Training Time
A	1 hour
B	2 hours
C	3 hours
D	4 hours
E	5 hours

4.3.2 Example of Generated Thesis

Chapter 5

How to use citations

Here are the related works [1–4] and [8].

Chapter 6

One way to write algorithms

Algorithm 1: Name of the Algorithm

Input: Codeword from channel with the i*th* element equal to $L(P_{V_i}^{int})$

Output: Decoded message $\hat{V}$ with the i*th* element equal to $\hat{V}_i$

```
// Just comment this comment and the above Input and Output if not needed them
```

Initialization:
for *each* V_i *in* $\mathcal{V}$ **do**
    $V_i = L(P_{v_i}^{int})$
Decoding:
for t = *1,..,Max Iterations* **do**
    for m = *1,..,Sub Iterations* **do**
        Check Node Processing:
        do something based on Eqn. (3.1)
        Variable Node Processing:
        Calculate γ based on Eqn. (3.2)
        Check fo rearly termination or continue util max iter

Chapter 7

Conclusion

You have compled your thesis, do whatever you please with your life.

Appendix A

First Appendix

The is an appendix chapter. You can define more appendices in the same way.

A.1 First Section

The is an appendix session. You can define more sessions in the same way.

Reference

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[4] *Part 15.3:WirelessMedium Access Control (MAC) and Physical Layer (PHY) Specifications for High Rate Wireless Personal Area Networks(WPANs),* IEEE Std. P802.15.3c, 2009.

[5] *PHY/MAC Complete Proposal Specification, Std. IEEE 802.11-10/0433r,* IEEE 802.11 Task Group AD, May 2010.

[6] *P802.11ay™/D3.0 Draft Standard for Information Technology – Telecommunications and Information Exchange Between Systems –Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications – Amendment 2: Enhanced throughput for operation in license-exempt bands above 45 GHz,* February, 2019.

[7] A. J. Blanksby and C. J. Howland, "A 690-mW1-Gb/s 1024-b, rate-1/2 low-density parity-check code decoder," *IEEE J. Solid-State Circuits,* vol. 37, no. 3, pp. 404–412, Mar. 2002.

[8] M. P. C. Fossorier, M. Mihaljevic and H. Imai, "Reduced complexity iterative decoding of low-density parity check codes based on belief propagation," *in IEEE Transactions on Communications,* vol. 47, no. 5, pp. 673-680, May 1999.

[9] whoever and whatever you put here