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硕士学位论文

NUA^2 THESIS 英文论文示例

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"How to" Write *Thesis* in English with NUA^2 Thesis

A Thesis in

Programming and Typesetting

by

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摘 要

本文主要演示英文论文写作时的注意事项。

大部分中文 LaTeX 的内容同样适用于英文，在此不再赘述。

关键词：英语，注意事项

ABSTRACT

In this document, we will demonstrate how to write thesis with NUA^2 Thesis.

Because both English and Chinese essays use the same document class, please refer to the Chinese demo for common features. This document only focuses on English-specific features.

Keywords: English, thesis writing

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Notations

A, A_0	状态方程矩阵	e	误差绝对值
a	重心到前轴的距离	e_i	误差变化率
a_0, a_1, a_2, a_3	多项式系数	$F(\omega)$	多项式
a_{c0}	加速度变量	F_i, θ_i	Fadeev 递归算法中间变量
a_{s1}, a_{s0}	连轴器及传动轴简化模型传递系数	F_X	汽车总制动力
		F_Y	汽车总侧向力
a_y	横向加速度	f_b	轮胎制动力
a_{yc}	横向加速度极限值	f_{bi}, f_{ci}	各轮制动力和侧偏力
$\tilde{a}_0, \tilde{a}_1, \tilde{a}_2, \tilde{a}_3$	多项式系数	G	状态方程矩阵
B, B_0, B_1	状态方程矩阵	g	重力加速度
B_{w1}, B_{w2}	状态方程矩阵	H	汽车重心高度
b	重心到后轴的距离	$H(j\omega)$	频响函数
b_0, b_1, b_2, b_3	多项式系数	h	汽车重心到侧倾中心的距离
b_m	电机阻尼比系数	h_r	汽车侧倾中心高度

Abbreviations

Abbreviation	Full Form
WSN	Wireless Sensor Networks
CAM	Center Angle Method
LEACH	Low-Energy Adaptive Clustering Hierarchy

Chapter 1 QUICK START

Welcome to NUA^2 THESIS, a LaTeX thesis template with English support for foreign language college and/or international students. We assume that you are familiar with writing articles in LaTeX.

The source code is hosted on `https://github.com/nuaatug/nuaathesis`, feedback, issues and pull requests are always welcomed.

1.1 Setup LaTeX Environment

NUA^2 THESIS requires some packages which are not included in basic/minimum LaTeX installation. Here are some tips to install the depended packages:

- **MiKTeX** it will install missing packages when compiling the document. If you have trouble downloading the missing packages, please change the mirror server, or wait for another day, good luck `:)`
- **TeX Live** please install the following collections: langchinese, latexextra, science, pictures, fontsextra. Check out `.ci/install.bat` or `.ci/install.sh`, which tries to automate the process for you.

For Windows users, please definitely check out chapter 2 (in `windows.tex`).

1.2 Compile Template

Skip this section if you already have `nuaathesis.cls`.

Run `build.bat` (Windows) or `build.sh` (others), it will extract the document class `*.cls` and build the document `*.pdf`.

1.3 Prepare Thesis

This document is also written with NUA^2 THESIS. It is highly recommended to start with compiling this document and adapt it into your thesis.

Please make sure that the thesis directory contains the following files. If any of them is missing, please copy it from the root directory of the template.

- `nuaathesis.cls`: document class;
- `nuaathesis.bst`: biber style;
- `logo/`: folder, contains some artworks for cover and header.

You should change your editor's options to compile the thesis with `latexmk`, here are some instruc-

tions for a few editors.

1.3.1 Using TeXstudio

1. Open the root file `bachelor.tex` or `master.tex`;
2. Open `Options` menu > `Configure TeXstudio` dialog;
3. Navigate to `Build` on the left, change `Default Compiler` to `Latexmk`
4. Save and enjoy.

1.3.2 Using vscode

1. Open the directory with your thesis;
2. Install the extension named `LaTeX Workshop`;
3. Open the root file `bachelor.tex` or `master.tex`, delete the unused one;
4. Build with LaTeX Workshop.

1.4 Modify Thesis

Here is the list of files that you need to modify to adapt it into your thesis:

- `bachelor.tex` or `master.tex`: the root file
- `global.tex`: basic information for cover and abstract, import packages, define macros
- `content/`: main matters here, usually one for each chapter
- `bib/`: biber database

1.5 Disclamer

This is UNOFFICIAL LaTeX thesis template for NUAA. Since format specification on English thesis has never been published, nor has this template received official certification, there is the risk that the thesis format might not be accepted.

The story is almost the same as the Chinese ones. We try our best to match NUA^2 Thesis with the (Chinese only) official Word template, but we cannot guarantee the correct format.

Chapter 2 Windows TIPS

2.1 Install Simplified Chinese Fonts

Some document will not compile without simplified Chinese fonts from Windows. If LaTeX cannot find files such as `simsun.ttc`, `simhei.ttf`, you can work around with it by adding `fontset=fandol` to the template arguments, or install the simplified Chinese fonts with the following steps.

1. Open the Start menu, launch `Windows PowerShell` with administrator privilege,
2. Paste following commands:

```
Set-Service BITS -StartupType Automatic; Start-Service BITS
Set-Service wuauserv -StartupType Automatic; Start-Service wuauserv
Import-Module Dism
Get-WindowsCapability -Online | where { $_.Name -match "Font" -and $_.Name -match "
Hans" } | Add-WindowsCapability -Online
```

2.2 Using MikTeX

MikTeX is an easy-to-use LaTeX environment, which can install missing packages automatically. But there are some bugs. Here is the recommended steps to avoid them:

1. Download the installer from `https://miktex.org/download`,
2. Launch the installer,
3. When choosing “Installation Scope”, make sure to choose “Install MiKTeX only for me”, there are some privilege bugs with system-wide installation,
4. Finish the installation
5. Close MikTeX consoles before compiling documents.

There are MikTeX mirrors in China, but they might be temporarily disabled/removed because of out-of-date synchronization. Choose Japan/USA mirrors, or try again another day.

Chapter 3 INTRODUCTION

3.1 Theorem Environment

Please define theorems with following macros in `global.tex`:

- `\nuaatheoremchapu`, the suffix stands for CHAPter Unified, it produces two-level unique numbering (recommended?)
- `\nuaatheoremchap`, the suffix stands for CHAPter, it produces regular two-level numbering
- `\nuaatheoremg`, the suffix stands for Global, it produces one-level numbering

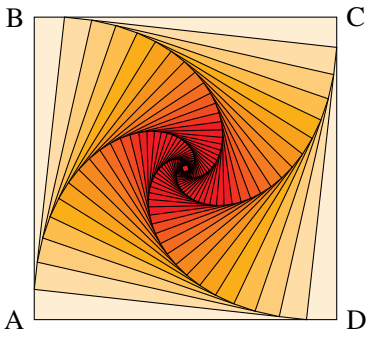
Here is the Definition 3.1.

Definition 3.1: *Bonus points are extra gains.*

3.2 Using Figure

Take a look at the figure below, and the table of figures for the Figure 3.1.

(a) Logo in PDF



(b) Figure in TikZ

Figure 3.1 This is a figure

3.3 Using Table

Never underestimate the power of crowd (in bus/metro) as shown in Table 3.1.

3.4 Using Proof

Proof: It is impossible to separate a cube into two cubes, or a fourth power into two fourth powers, or in general, any power higher than the second, into two like powers.

I have discovered a truly marvelous proof of this, which this margin is too narrow to contain. □

Table 3.1 City with large population (source: Wikipedia)

City	Population
Mexico City	20,116,842
Shanghai	19,210,000
Peking	15,796,450
Istanbul	14,160,467

3.5 Using Reference

Cite one paper[1], or multiple[2–4].

Here is inline cited paper[5], and another paper[6–8].

3.6 Organization of the Thesis

The organization of this thesis is as follows.

Bibliography

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Bibliography

[1] here is the hand-coded reference
[2] do NOT use hand-coded reference, unless `biber` does not work for your thesis
[3] you cannot cite in the same way as `biber`, but `\label` and `\ref` still work
[4] here is an example:
[5] KANAMORI H. Shaking without quaking[J]. Science, 1998, 279(5359): 2063.

Cite example: Don't write like this [1], write that[5] instead.

Acknowledge

Thanks for reading, and have a nice day.

在学期间的研究成果及学术论文情况

攻读硕士学位期间发表（录用）论文情况

1. list your publications here
2. biber is not working here, write in plain TEX, such as:
3. Lamport, Leslie. LATEX: a document preparation system: user's guide and reference manual. Addison-wesley, 1994.

研究生期间参与的科研项目

1. list your involved projects here, such as:
2. 国家自然科学基金 (No.12345678)