# A Report Template for Internet Technology and Engineering R&D Center of HUST: the itecreport-zh and itecreport-en class \*

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<sup>\*</sup>This document corresponds to itecreport-zh.cls and itecreport-en.cls v1.0, dated 2013/06/01.

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# **I** Introduction

This is a report template for Internet Technology and Engineering R&D Center of HUST. This template is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

The whole project is published under LPPL v1.3 License at GitHub.

This template provides two class files which correspond to Chinese version and English version template separately: itecreport-zh and itecreporten.

Read Part II and Part III for usage of Chinese version and English version template separately. The Part IV is the implementation of this template.

# II 中文模板使用方法

## 1 使用必要条件

- 1. 安装最新版本的 Texlive (推荐) 或 MiKTex。因为未及时更新的宏包可能存在未修复的 bug,请确保所有宏包都更新至最新。
- 2. 安装如下中文字体1:
  - a) AdobeSongStd-Light
  - b) AdobeKaitiStd-Regular
  - c) AdobeHeitiStd-Regular
  - d) AdobeFangsongStd-Regular



如果使用 LuaT<sub>E</sub>X,安装字体之后需运行命令 mkluatexfontdb 生成字体索引。

## 2 安装

## 2.1 安装到本地

使用如下命令即可安装本模板到本地:

make install

如需卸载,则使用如下命令:

make uninstall

对于没有安装 Make 的 Windows 系统用户,可以使用如下命令安装:

makewin32.bat install

如需卸载,则使用如下命令:

makewin32.bat uninstall

虽然 makewin32.bat 表现与 Makefile 极其相似,但是还是强烈建议你安装 Make,对于 Windows 用户可以在这里下载。

<sup>&</sup>lt;sup>1</sup>本模板所用到的英文字体 Tex Gyre Termes, Droid Sans 和 CMU Typewriter Text 均默 认安装于 Texlive 和 MiKTex 中。

## 2.2 免安装使用

如果你希望临时使用本模板,而非安装到本地供长期使用。使用如下命令 解压模板文件:

make unpack

对于没有安装 Make 的 Windows 系统用户,则使用如下命令解压:

makewin32.bat unpack

再将 itecreport 目录下的 itecreport-zh.cls 文件拷贝到你 TeX 工程根目录下即可。

## 3 基本用法



本文档只能使用 XTIATEX 或 LuaIATEX (推荐) 编译。

在源文件开头处选择加载本文档类型,即可使用本模板,如下所示:

\documentclass{itecreport-zh}

## 3.1 基本字段设置

模板中定义一些命令用于设置文档中的字段。其中一部分命令是以\zhX{<Chinese var>},\enX{<English var>}和\X{<Chinese var>}{<English var>}的形式出现,他们分别意味着设置字段 X 的中文部分,英文部分及一同设定。

 $\rownian \rownian \$ 

该命令用于设置文档编号。该命令是可选的,如果不加以设定,封面处不会显示相应项。

\entitle \entitle{ $\langle English\ title \rangle$ }

 $\verb|\title| \ \title{$\langle$ Chinese title$\rangle$} \{\langle English title$\rangle$\}$ 

这一组命令用于设定文档的中英文标题。

 $\ensuremath{ ext{ \left}} \operatorname{\ensuremath{\columnwidth{\column}}} \operatorname{\ensuremath{\columnwidth}\columnwidth}\endot}}}}}}$ 

 $\verb|\author| & \verb|\author| & \verb|\$ 

这一组命令用于设定文档的中英文作者名。

 $\verb|\date| \date{\date} \date{\$ 

该命令用于设定文档的日期。如果不设定,则会选择当前编译日期作为文档的 日期。

 $\verb|\zhsupervisor| \langle \textit{Chinese supervisor} \rangle \}$ 

 $\verb|\ensupervisor| \{ \langle \textit{English supervisor} \rangle \}|$ 

 $\verb|\supervisor| & \verb|\supervisor| & \verb|\constraint| & supervisor| & \verb|\constraint| & supervisor| & \\ & | & supervisor| & supervis$ 

这一组命令用于设定文档的中英文指导老师名(含职称)。该命令是可选的,如

果不加以设定, 封面处不会显示相应项。

 $\verb|\enabstract| $$ \enabstract{\langle English \ abstract \rangle}$$ 

 $\abstract \ \abstract{\langle Chinese\ abstract \rangle}{\langle English\ abstract \rangle}$ 

这一组命令用于设定文档的中英文摘要。

 $\verb|\zhkeywords| \langle \textit{Chinese keywords} \rangle|$ 

 $\verb|\enkeywords| {\it English keywords}| \\$ 

 $\verb|\keywords| & \langle \textit{Chinese keywords} \rangle \} \{ \langle \textit{English keywords} \rangle \}$ 

这一组命令用于设定文档的中英文关键字。

## 3.2 其它基本命令

下面来介绍其它基本命令。

\frontmatter 这一组命令用于设定论文的状态、改变样式,其具体使用见简单示例。\frontmatter

\mainmatter 用在文档最开始,表明文档的前言部分 (如封面,摘要,目录等)的开始。

\backmatter \mainmatter 表示论文正文的开始。\backmatter 表示论文正文的结束。

\maketitle \maketitle 和\makecover作用相同,用于生成封面和版权页面。

\makecover

\makeabstract 用于牛成中英文摘要页面。

\tableofcontents 用于生成目录。

\zhdateformat 用于打印中英文日期。

\endateformat

ack 本境用于致谢页面。使用方法如下:

\begin{ack} <content> \end{ack}

\bibliography

\bibliography $\{\langle .bib \ file \rangle\}$ 

用于生成参考文献。

appendix

appendix 环境用于附录环境。你可以将附录置于 appendix 环境中, 如:

\begin{appendix}

<content>

\end{appendix}

\appendix 或者使用\appendix代表后文均为附录,如:

\appendix

<content>

\listoftables

\listoffigures 这两个命令分别用于生成图片和表格索引,可以根据要求在论文前言中使用或 附录中使用。

publications

publications 环境用于已发表论文页面。一般用于附录中。使用上同 enumerate 环境。如下:

\begin{publications}

\item <thesis>

<...>

\end{publications}

\TurnOffTabFontSetting

\TurnOnTabFontSetting

因为模板中设定了表格的行距和字号,使得使用中无法临时自定义表格的行距 和字号。故提供两个命令用于关闭和开启默认表格的行距和字号设置。比如你 如果需要输出一个自己定义字号的表格,可以使用如下示例:

\begingroup

\TurnOffTabFontSetting

\footnotesize % 设置字号

\begin{tabular}{...}

<content>

\end{tabular}

\TurnOnTabFontSetting

\endgroup

```
\ensuremath{\mbox{\mbox{\it email}}} \ensuremath{\mbox{\it Email}} Address \}
```

用于生成邮箱地址。如\email{name@example.com}会生成如下效果的地址: name@example.com。

## 4 简单示例

如下为一个使用本模板的简单示例。更完整的例子请见itecreport-zh-example.tex 文件,其效果见itecreport-zh-example.pdf。

```
\documentclass{itecreport-zh}
  \reportno{12345} % 可选
4 \title{中文标题}{英文标题}
5 \author{作者名}{作者名拼音}
  \supervisor{指导老师中文}{指导老师英文} % 可选
  \del{date} \{2013\} \{6\} \{1\}
  \zhabstract{中文摘要}
  \zhkeywords{中文关键字}
  \enabstract{英文摘要}
  \enkeywords{英文关键字}
  \begin{document}
  \frontmatter
  \maketitle
  \makeabstract
  \tableofcontents
20 \listoffigures
21 \listoftables
  \mainmatter
  %% 正文
  \backmatter
28 \begin{ack}
29 %% 致谢
  \ensuremath{\mbox{end}} \{ack\}
  \bibliography{参考文献.bib文件}
  \appendix
33
35 \begin{publications}
36 %% 发表过的论文列表
```

```
37 \end{publications}
38
39 %% 附录剩余部分
40
41 \end{document}
```

# 5 预设宏包介绍

本模板中预设了一些宏包,下面对其进行简单介绍。

- algorithm2e 算法环境。
- enumitem 自定义列表环境的式样。
- fancynum 用于将大数每三位断开。
- listings 代码环境。如需更好的代码高亮可以使用 minted 宏包。
- longtable 跨页的超长表格环境。
- Itxtable longtable 环境和 tabularx 环境的合并。
- multirow 用于表格中合并行。
- overpic 用于在图片上层叠其他内容。
- tabularx 扩展到表格环境。
- xy-pic 用于绘制简单图形。如需更高级功能可以使用 tikz 宏包。
- zhnumber 用于生成中文数字。

# 6 高级设置

## 6.1 切换字体

模板正文字体为宋体 (AdobeSongStd-Light),同时我们提供如下命令切换中文字体:

```
\hei \hei \content\}
\hei \hei \content\}
\tag{KAI} \tag{KAI \content}
\tag{KAI \content
```

如果需要加载其他字体,请参阅宏包 fontspec,宏包 xeCJK (对于 X<sub>2</sub>IAT<sub>E</sub>X)和宏包 luatex-ja (对于 LualAT<sub>E</sub>X)的文档。

# III Usage of English Version Template

# 1 Requirement

Install the latest version of Texlive(Recommend) or MiKTex. Please ensure that all the packages are up-to-date.

## 2 Installation

### 2.1 Install into local

Use the command below to install this template into local.

```
make install
```

If you need uninstall it, use the command below.

```
make uninstall
```

For Windows User who don't install Make, use the command below to install.

```
makewin32.bat install
```

If you need uninstall it, use the command below.

```
makewin32.bat uninstall
```

Although makewin32.bat behaves much like Makefile, I still recommend you install Make into your Windows. You can download it from here.

#### 2.2 Use without installation

If you want to use this template temporary rather than installing it into local for long term use. Run below command to unpack the package.

```
make unpack
```

For Windows User who don't install Make, use the command below to unpack the package.

```
makewin32.bat unpack
```

Then copy the file itecreport-en.cls from directory itecreport into your TeX project root directory.

# 3 Usage



This template can only be compiled by X¬BTEX orLuaBTFX(Recommend).

Insert below code in the top of source code to use this template:

\documentclass{itecreport-en}

#### 3.1 Variables setting

There're some commands which are used to set the variables for the report.

 $\rownian {\langle Report Number \rangle}$ \reportno Set report number if you have. Otherwise it will not be shown in tiltepage. \title \title $\{\langle title \rangle\}$ Set title.  $\operatorname{\Delta}(\operatorname{author})$ \author Set author.  $\verb|\date| \date{\langle \mathit{Year}\rangle} {\langle \mathit{Month}\rangle} {\langle \mathit{Day}\rangle}$ Set date. If you don't set it, template will use current date.  $\space{$\langle supervisor \rangle$}$ \supervisor Set your supervisor if you have. Otherwise it will not be shown in tiltepage.  $\abstract{\langle abstract \rangle}$ \abstract Put your abstract.  $\keywords{\langle keywords \rangle}$ \keywords Put your keywords.

#### Other commands 3.2

\mainmatter

\frontmatter Used to determine the different part of document. You can see the example at section 4.

\backmatter

\maketitle and \makecover are the same. Used to create the title page. \maketitle \makecover \makeabstract Used to create abstract page. \tableofcontents Used to create table of contents. \dateformat Used to print the date. ack The ack environment is used to create acknowledge page. \begin{ack} <content>  $\end{ack}$ \bibliography $\{\langle .bib \ file \rangle\}$ \bibliography Used to create bibliography page. The appendix environment is for appendix of course. Used like this: appendix \begin{appendix} <content> \end{appendix} \appendix Or simple use \appendix to indicate that the rest of document are all in appendix, like this: \appendix <content>

\listoffigures \listoftables

\listoffigures Create the index for all the figures and tables separately.

publications

The publications environment is where you list all of your published thesises. It's usually putted in appendix.

```
\TurnOffTabFontSetting
\TurnOnTabFontSetting
```

This template has set the font size and line spread for all the tables which makes it's impossible to change font format temporary in one table. So it provides these to command to temporary disable or enable default font setting in table. For example, if you want to change table font size, you can use the code like this:

 $\ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{\mbox{$\sim$}}} \ensuremath{\mbox{$\sim$}} \ensuremath{\m$ 

A command to display email address. For example, \email{name@example.com} would look like this: name@example.com.

# 4 Simple example

Below is a simple example of using this template. For a complete example see itecreport-en-example.tex which will generate itecreport-en-example.pdf.

```
1 \documentclass{itecreport-en}
2
3 \reportno{12345} % Optional
4 \title{your title}
5 \author{your name}
6 \supervisor{your supervisor} % Optional
7 \date{2013}{6}{1}
8
9 \abstract{the abstract}
10 \keywords{the keywords}
11
12 \begin{document}
13
14 \frontmatter
15 \maketitle
16 \makeabstract
17 \tableofcontents
```

# 5 Introduction to some packages used in the template

Here's a list of some packages used in the template.

- algorithm2e For display algorithm.
- enumitem For set the style of enumerate, itemize and description environment.
- fancynum Display the really big number.
- listings For display the highlighted code. If you need better quality, use the package minted.
- longtable Create a very long table.
- Itxtable Combine the features of longtable anb tabularx.
- multirow Combine multi-rows in table.
- overpic Put something over a picture,
- tabularx A better table environment.
- xy-pic To draw some picture. If you need more advanced features, use the package tikz.

# IV Implementation

```
1 (*class)
2 \RequirePackage{ifthen}
```

# 1 Process Options

Process options and load class book.

```
3 \RequirePackage{xkeyval}
4 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}
5 \ProcessOptionsX
6 \LoadClass[12pt, a4paper, openany]{book}
```

# 2 Check Engine

Check engine, only X¬IETEX and LuaIETEX are supported.

```
7 \RequirePackage{iftex}
8 \ifXeTeX\else
  \ifLuaTeX\else
    \begingroup
10
     \errorcontextlines=-1\relax
     \newlinechar=10\relax
     \errmessage{^^J
13
     * XeTeX or LuaTeX is required to compile this document.^^J
     * Sorry!^^J
16
     }%
    \endgroup
  \fi
21 \fi
```

# **3 Font Setting**

Set font used in document. Firstly, it's font setting for English version template (itecreport-en). We use fontspec package to handle font. We choose Tex Gyre Termes, Droid Sans and CMU Typewriter Text as document main font, sans font and mono font.

```
(*class-en)
  \RequirePackage{fontspec}
24 \setmainfont[
    Ligatures={Common, TeX},
    Extension=.otf,
26
    UprightFont=*-regular,
27
    BoldFont=*-bold,
28
    ItalicFont=*-italic,
29
    BoldItalicFont=*-bolditalic] {texgyretermes}
  \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
  \setmonofont{CMU Typewriter Text}
33 \defaultfontfeatures{Mapping=tex-text}
34 (/class-en)
```

Below is the font setting for Chinese version template (itecreport-zh). The Chinese version template chooses the same English font as English version. We use xecjk package (for XqIATeX) or luatex-ja package (for LuaIATeX, recommend) to handle Chinese font. We will use font: AdobeSongStd-Light, AdobeKaitiStd-Regular, AdobeHeitiStd-Regular and AdobeFangsongStd-Regular.

```
35 (*class-zh)
 \ifXeTeX % XeTeX 下使用 fontspec + xeCJK 处理字体
    % 英文字体
37
    \RequirePackage{fontspec}
38
    \RequirePackage{xunicode}
    \setmainfont[
40
      Ligatures={Common,TeX},
41
      Extension=.otf,
42
      UprightFont=*-regular,
43
      BoldFont=*-bold,
44
      ItalicFont=*-italic,
45
      BoldItalicFont=*-bolditalic] {texgyretermes}
46
    \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
47
    \setmonofont{CMU Typewriter Text}
48
    \defaultfontfeatures{Mapping=tex-text}
49
    % 中文字体
50
    \RequirePackage[CJKmath]{xeCJK}
51
    \setCJKmainfont[
52
     BoldFont={Adobe Heiti Std},
53
     ItalicFont={Adobe Kaiti Std}]{Adobe Song Std}
54
    \setCJKsansfont{Adobe Kaiti Std}
```

- \setCJKmonofont{Adobe Fangsong Std}
- 57 \xeCJKsetup{PunctStyle=kaiming}

#### \HEI

\frac{1}{1} \newCJKfontfamily\HEI{Adobe Heiti Std}

(End definition for \HEI. This function is documented on page 9.)

#### \KAI

59 \newCJKfontfamily\KAI{Adobe Kaiti Std}
(End definition for \KAI. This function is documented on page 9.)

#### \FANGSONG

\(\text{\newCJKfontfamily\FANGSONG{Adobe Fangsong Std}\) \((End definition for \FANGSONG. This function is documented on page 9.)\)

#### \hei

\frac{\hei}[1]{{\HEI #1}}

(End definition for \hei. This function is documented on page 9.)

#### \kai

\frac{\kai}[1]{{\KAI #1}} \(End definition for \kai. This function is documented on page 9.)

#### \fangsong

- \(\)\newcommand{\fangsong}[1]{{\FANGSONG #1}}\\
  \(\)(End definition for \fangsong. This function is documented on page 9.)
- 64 \else\fi
- 65 \ifLuaTeX % LuaTeX 下使用 luatex-ja 处理字体 [推荐]
- \RequirePackage{luatexja-fontspec}
- 67 % 英文字体
- 68 \setmainfont[Ligatures={Common,TeX}]{Tex Gyre Termes}
- 69 \setsansfont[Ligatures={Common,TeX}]{Droid Sans}
- 70 \setmonofont{CMU Typewriter Text}
- 71 \defaultfontfeatures{Mapping=tex-text,Scale=MatchLowercase}
- 72 % 中文字体
- 73 \setmainjfont[
- 74 BoldFont={AdobeHeitiStd-Regular},
- 75 ItalicFont={AdobeKaitiStd-Regular}]{AdobeSongStd-Light}
- 76 \setsansjfont{AdobeKaitiStd-Regular}
- 77 \defaultjfontfeatures{JFM=kaiming}

#### \HEI

78 \newjfontfamily\HEI{AdobeHeitiStd-Regular} (End definition for \HEI. This function is documented on page 9.)

#### \KAI

79 \newjfontfamily\KAI{AdobeKaitiStd-Regular} (End definition for \KAI. This function is documented on page 9.)

#### \FANGSONG

Newjfontfamily\FANGSONG{AdobeFangsongStd-Regular} (End definition for \FANGSONG. This function is documented on page 9.)

#### \hei

\newcommand{\hei}[1]{{\jfontspec{AdobeHeitiStd-Regular} #1}}

(End definition for \hei. This function is documented on page 9.)

#### \kai

\newcommand{\kai}[1]{{\jfontspec{AdobeKaitiStd-Regular} #1}}

(End definition for \kai. This function is documented on page 9.)

#### \fangsong

- \newcommand{\fangsong}[1]{{\jfontspec{AdobeFangsongStd-Regular} #1}}

  (End definition for \fangsong. This function is documented on page 9.)
- 84 \else\fi

Chinese number for itecreport-zh using zhnumber.

- 85 \RequirePackage{zhnumber}
- 86 \def\CJKnumber#1{\zhnumber{#1}} % 兼容 CJKnumb
- 87 (/class-zh)

## 4 Basic Format

Use interfaces package to handle font size and line spread. We set global line spread to 1.2.

- 88 \RequirePackage{interfaces-LaTeX}
- 89 \changefont{linespread=1.2}

Use geometry package to handle paper page.

```
90 \RequirePackage{geometry}
  \geometry{
     a4paper,
92
     top=1.2in,
93
     bottom=1.2in,
94
     left=1in,
     right=1in,
     includefoot
97
98 }
99 \pdfpagewidth=\paperwidth
100 \pdfpageheight=\paperheight
     Indent of paragraph and skip between paragraphs.
101 \RequirePackage{indentfirst}
102 \setlength{\parindent}{2em}
103 \setlength{\parskip}{Opt plus 2pt minus 1pt}
     Packages to handle color.
104 \RequirePackage{color}
105 \RequirePackage[table]{xcolor}
     Use hyperref package to generate cross-reference link.
106 \RequirePackage[unicode]{hyperref}
  \definecolor{ITEC@hyperreflinkred}{RGB}{128,23,31}
  \hypersetup{
108
     bookmarksnumbered=true,
     bookmarksopen=true,
110
     bookmarksopenlevel=1,
111
     breaklinks=true,
112
     colorlinks=true,
113
     allcolors=ITEC@hyperreflinkred,
     linktoc=page,
115
     plainpages=false,
116
     pdfpagelabels=true,
117
     pdfstartview={XYZ null null 1},
   \(class-zh\)pdfinfo={Template.Info={itecreport-zh.cls 2013/06/01, Copyright (C) 2013-2014
   \class-en\pdfinfo={Template.Info={itecreport-en.cls 2013/06/01, Copyright (C) 2013-2014
121 }
```

# 5 Load Packages

Load packages for math.

```
122 \RequirePackage{amsmath,amssymb,amsfonts}
  \RequirePackage[amsmath,amsthm,thmmarks,hyperref,thref]{ntheorem}
  \RequirePackage{fancynum}
  \setfnumgsym{\,}
126 \RequirePackage[lined,boxed,linesnumbered,ruled,vlined]{algorithm2e}
     Load packages for picture.
127 \RequirePackage[all]{xy}
  \RequirePackage{overpic}
129 \RequirePackage{graphicx,caption,subcaption}
     Load packages for table.
130 \RequirePackage{array}
131 \RequirePackage{multirow,tabularx,ltxtable}
     Load package for code highlight. Here we use listings to highlight
 the code. But if you need more features, use minted.
132 \RequirePackage{listings}
     Load package for bibliography cite style.
133 \RequirePackage[numbers,square,comma,sort&compress]{natbib}
     Other packages for style setting.
134 \RequirePackage{titlesec}
  \RequirePackage{titletoc}
  \RequirePackage{tocvsec2}
  \RequirePackage[inline] {enumitem}
  \RequirePackage{fancyhdr}
  \RequirePackage{afterpage}
  \RequirePackage{datenumber}
  \RequirePackage{etoolbox}
142 \RequirePackage{appendix}
143 \RequirePackage[titles]{tocloft}
  \RequirePackage{xstring}
145 \RequirePackage{perpage}
```

## 6 Localization

Chinese localization. <sup>2</sup>

```
146 (*class-zh)
147 \def\indexname{索引}
148 \def\figurename{图}
149 \def\tablename{表}
150 \AtBeginDocument{\def\listingscaption{代码}}
151 \def\bibname{参考文献}
152 \def\contentsname{目\hspace{1em}录}
153 \def\contentsnamenospace{目录}
154 \def\appendixname{附录}
155 \def\ITEC@listfigurename{插图索引}
156 \def\ITEC@listtablename{表格索引}
157 \def\equationautorefname{公式}
158 \def\footnoteautorefname{脚注}
159 \def\itemautorefname~#1\null{第~#1~项\null}
160 \def\figureautorefname{图}
161 \def\tableautorefname{表}
162 \def\appendixautorefname{附录}
163 \expandafter\def\csname\appendixname autorefname\endcsname{\appendix-
  name}
164 \def\chapterautorefname~#1\null{第\zhnumber{#1}章\null}
165 \def\sectionautorefname~#1\null{#1~小节\null}
166 \def\subsectionautorefname~#1\null{#1~小节\null}
167 \def\subsubsectionautorefname~#1\null{#1~小节\null}
168 \def\FancyVerbLineautorefname~#1\null{第~#1~行\null}
169 \def\pageautorefname~#1\null{第~#1~页\null}
170 \def\lstlistingautorefname{代码}
171 \def\definitionautorefname{定义}
172 \def\propositionautorefname{命题}
173 \def\lemmaautorefname{引理}
174 \def\theoremautorefname{定理}
175 \def\axiomautorefname{公理}
176 \def\corollaryautorefname{推论}
177 \def\exerciseautorefname{练习}
178 \def\exampleautorefname{例}
179 \def\proofautorefname{证明}
```

<sup>&</sup>lt;sup>2</sup>The autorefname Reference:http://tex.stackexchange.com/questions/52410/how-to-use-the-command-autoref-to-implement-the-same-effect-when-use-the-comman

```
180 \SetAlgorithmName{算法}{算法}{算法索引}
181 \SetAlgoProcName{过程}{过程}
182 \SetAlgoFuncName{函数}{函数}
183 \def\AlgoLineautorefname~#1\null{第~#1~行\null}
184 (/class-zh)
     English localization.
185 (*class-en)
186 \def\ITEC@listfigurename{List of Figures}
187 \def\ITEC@listtablename{List of Tables}
188 \def\equationautorefname{Equation}
189 \def\footnoteautorefname{Footnote}
190 \def\itemautorefname{Item}
191 \def\figureautorefname{Figure}
192 \def\tableautorefname{Table}
193 \def\appendixautorefname{Appendix}
194 \expandafter\def\csname\appendixname autorefname\endcsname{\appendix-
  name}
195 \def\chapterautorefname{Chapter}
196 \def\sectionautorefname{Section}
197 \def\subsectionautorefname{Subsection}
198 \def\subsubsectionautorefname{Sub-subsection}
199 \def\FancyVerbLineautorefname{Line}
200 \def\pageautorefname{Page}
201 \def\lstlistingautorefname{Code Fragment}
202 \def\definitionautorefname{Definition}
203 \def\propositionautorefname{Proposition}
204 \def\lemmaautorefname{Lemma}
205 \def\theoremautorefname{Theorem}
206 \def\axiomautorefname{Axiom}
207 \def\corollaryautorefname{Corollary}
208 \def\exerciseautorefname{Exercise}
209 \def\exampleautorefname{Example}
210 \def\proofautorefname{Proof}
\SetAlgorithmName{Algorithm}{Algorithm}{List of Algorithms}
212 \SetAlgoProcName{Procedure}{Procedure}
213 \SetAlgoFuncName{Function}{Function}
214 \def\AlgoLineautorefname{Line}
215 (/class-en)
     Internal variables.
216 (*class-en | class-zh)
```

```
217 \long\def\ITEC@entitletitle{Huazhong University of Science and Tech-
  nology\Department of Electronics and Information Engineering\Inter-
  net Technology and Engineering R\char38D Center\\[0.8cm]Technical Re-
  port}
218 \def\ITEC@enauthortitle{Author}
219 \def\ITEC@ensupervisortitle{Supervisor}
220 \def\ITEC@enabstractname{Abstract}
221 \def\ITEC@enkeywordstitle{Key words:}
222 (/class-en | class-zh)
223 (*class-en)
224 \def\ITEC@ackname{Acknowledge}
225 \def\ITEC@publicationtitle{Publication}
226 (/class-en)
227 (*class-zh)
228 \long\def\ITEC@zhtitletitle{华中科技大学 电子与信息工程系\\湖北省智能互
  联网技术重点实验室\\[0.8cm]技术报告}
229 \def\ITEC@zhauthortitle{作者}
230 \def\ITEC@zhsupervisortitle{指导教师}
231 \def\ITEC@zhabstractname{摘\hspace{1em}要}
232 \def\ITEC@zhabstractnamenospace{摘要}
233 \def\ITEC@zhkeywordstitle{关键词:}
234 \def\ITEC@ackname{致\hspace{1em}谢}
235 \def\ITEC@acknamenospace{致谢}
236 \def\ITEC@publicationtitle{在实验室期间发表的学术论文}
237 (/class-zh)
     Set \listfigurename and \listtablename.
238 \def\listfigurename{\ITEC@listfigurename}
239 \def\listtablename{\ITEC@listtablename}
```

# 7 Style Setting

## 7.1 Equation Style

Allow long equation breaking between lines or pages.

240 \allowdisplaybreaks[4]

Set skip between equation and context.

```
241 \abovedisplayskip=10bp plus 2bp minus 2bp
242 \abovedisplayshortskip=10bp plus 2bp minus 2bp
243 \belowdisplayskip=\abovedisplayskip
244 \belowdisplayshortskip=\abovedisplayshortskip
```

Set equation numbering style.

245 \numberwithin{equation}{chapter}

## 7.2 Theorem Style

We use amsthm to handle the proof environment and use ntheorem to handle other theorem environments.

```
246 \theoremnumbering{arabic}
   ⟨class-zh⟩\theoremseparator{: }
   ⟨class-en⟩\theoremseparator{:}
   \theorempreskip{1.2ex plus 0ex minus 1ex}
   \theorempostskip{1.2ex plus 0ex minus 1ex}
   \theoremheaderfont{\normalfont\bfseries\HEI}
   \theoremsymbol{}
   \theoremstyle{definition}
   \theorembodyfont{\normalfont}
   ⟨class-zh⟩\newtheorem{definition}{定义}[chapter]
   ⟨class-en⟩\newtheorem{definition}{Definition}[chapter]
258
  \theoremstyle{plain}
   \theorembodyfont{\itshape}
   (class-zh)\newtheorem{proposition}{命题}[chapter]
   ⟨class-en⟩\newtheorem{proposition}{Proposition}[chapter]
   (class-zh)\newtheorem{lemma}{引理}[chapter]
   ⟨class-en⟩\newtheorem{lemma}{Lemma}[chapter]
   (class-zh)\newtheorem{theorem}{定理}[chapter]
   ⟨class-en⟩\newtheorem{theorem}{Theorem}[chapter]
   (class-zh)\newtheorem{axiom}{公理}[chapter]
   ⟨class-en⟩\newtheorem{axiom}{Axiom}[chapter]
   (class-zh)\newtheorem{corollary}{推论}[chapter]
   ⟨class-en⟩\newtheorem{corollary}{Corollary}[chapter]
   (class-zh)\newtheorem{exercise}{练习}[chapter]
   ⟨class-en⟩\newtheorem{exercise}{Exercise}[chapter]
   (class-zh)\newtheorem{example}{例}[chapter]
   ⟨class-en⟩\newtheorem{example}{Example}[chapter]
274
275
   ⟨class-zh⟩\def\proofname{\hei{证明}}
  \class-en\\def\proofname{\textbf{Proof}}}
```

## 7.3 Floating Objects Style

Set the skip to the context for floating object with argument 'h'.

278 \setlength{\intextsep}{0.7\baselineskip plus 0.1\baselineskip minus 0.1\baselineskip}

Set the skip to the context for top or bottom floating object.

279 \setlength{\textfloatsep}{0.8\baselineskip plus 0.1\baselineskip minus 0.2\baselineskip}

Set the fraction of floating object. Make the fraction less crowded than default value to prevent floating object occupying too much space.

```
280 \renewcommand{\textfraction}{0.15}
281 \renewcommand{\textfraction}{0.85}
282 \renewcommand{\bottomfraction}{0.65}
283 \renewcommand{\floatpagefraction}{0.60}
```

## 7.4 Table Style

\tabincell A command make it easier to insert a new table into an existing cell.

```
\lambda \newcommand{\tabincell}[2]{\begin{tabular}{@{}#1@{}}#2\end{tabular}} (End definition for \tabincell. This function is documented on page ??.)
```

To prevent \cline breaking page in longtable environment, use in this way: \(\langle table content\rangle \tag{i-j}^3\)

```
285 \def\@cline#1-#2\@nil{%
     \omit
286
     \@multicnt#1%
287
     \advance\@multispan\m@ne
288
     \ifnum\@multicnt=\@ne\@firstofone{&\omit}\fi
289
     \@multicnt#2%
290
     \advance\@multicnt-#1%
291
     \advance\@multispan\@ne
292
     \leaders\hrule\@height\arrayrulewidth\hfill
293
294
     \noalign{\nobreak\vskip-\arrayrulewidth}}
```

Here we set the global font setting (font size: 11pt and line spread: 1.4) for tables. But first we will declare a variable to determine whether table global font setting is activated.

296 \newif\ifITEC@useoldtabular

 $<sup>^3</sup> Reference: http://tex.stackexchange.com/questions/52100/longtable-multirow-problem-with-cline-and-nopagebreak$ 

OffTabFontSetting Use \TurnOffTabFontSetting to deactivate global font setting.

```
298 \def\TurnOffTabFontSetting{\ITEC@useoldtabulartrue}
  (End definition for \TurnOffTabFontSetting. This function is documented on page 15.)
```

nOnTabFontSetting Use \TurnOnTabFontSetting to activate global font setting.

```
299 \def\TurnOnTabFontSetting{\ITEC@useoldtabularfalse}
  (End definition for \TurnOnTabFontSetting. This function is documented on page 15.)
```

Hook the tabular, tabularx and longtable environment to imply the global font setting.

```
300 \AtBeginEnvironment{tabular}{
     \ifITEC@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
302
     \fi
303
304 }
   \AtBeginEnvironment{tabularx}{
     \ifITEC@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
307
     \fi
308
309 }
  \AtBeginEnvironment{longtable}{
     \ifITEC@useoldtabular\else
       \changefont{size=11pt,linespread=1.4}
     \fi
314 }
```

#### 7.5 Caption Style

Set caption font size as 11pt, use hang format, remove ':' after number and set the skip between context as 12pt.

```
315 \DeclareCaptionFont{ITEC@captionfont}{\changefont{size=11pt}}
  \DeclareCaptionLabelFormat{ITEC@caplabel}{#1~#2}
  \captionsetup{
     font=ITEC@captionfont,
     labelformat=ITEC@caplabel,
319
     format=hang,
320
     labelsep=quad,
321
     skip=12pt
323 }
```

Set figure and table numbering style.

```
324 \renewcommand{\thetable}{\arabic{chapter}.\arabic{table}}
325 \renewcommand{\thefigure}{\arabic{chapter}-\arabic{figure}}
```

## 7.6 Code Highlight Style

```
\definecolor{ITEC@lstgreen}{rgb}{0,0.6,0}
   \definecolor{ITEC@lstmauve}{rgb}{0.58,0,0.82}
   \lstset{
329
     basicstyle=\footnotesize\ttfamily\changefont{linespread=1}
   ⟨class-zh⟩\FANGSONG
332
     keywordstyle=\color{blue}\bfseries,
333
     commentstyle=\color{ITEC@lstgreen}\itshape
334
   ⟨class-zh⟩\KAI
335
336
     stringstyle=\color{ITEC@lstmauve},
337
     showspaces=false,
338
     showstringspaces=false,
339
     showtabs=false,
     numbers=left,
341
     numberstyle=\tiny\color{black},
342
     frame=lines,
343
     rulecolor=\color{black},
     breaklines=true
346 }
```

## 7.7 Section Title Style

Set the numbering depth for section.

```
347 \setcounter{secnumdepth}{3}
```

Chapter tilte format and spacing setting.

```
⟨class-en⟩{Chapter~\thechapter}
     {1em}
     {}
358
  \titlespacing*{\chapter}{0pt}{0pt}{20pt}
     Section tilte format and spacing setting.
360 \titleformat*{\section}{\bfseries
  ⟨class-zh⟩\HEI
362 \changefont{size=16pt}}
363 \titlespacing*{\section}{0pt}{18pt}{6pt}
     Subsection tilte format and spacing setting.
364 \titleformat*{\subsection}{\bfseries
  ⟨class-zh⟩\HEI
366 \changefont{size=14pt}}
367 \titlespacing*{\subsection}{0pt}{12pt}{6pt}
     Subsubsection tilte format and spacing setting.
368 \titleformat*{\subsubsection}{\bfseries
  ⟨class-zh⟩\HEI
370 \changefont{size=13pt}}
371 \titlespacing*{\subsubsection}{0pt}{12pt}{6pt}
 7.8 TOC Style
     TOC depth.
372 \setcounter{tocdepth}{2}
     TOC right margin.
373 \contentsmargin{2.0em}
     Remove vertical space between two continues chapter entries. <sup>4</sup>
374 \newskip\ITEC@oldcftbeforechapskip
375 \ITEC@oldcftbeforechapskip=\cftbeforechapskip
376 \newskip\ITEC@oldcftbeforesecskip
377 \ITEC@oldcftbeforesecskip=\cftbeforesecskip
378 \let\ITEC@oldl@chapter\l@chapter
379 \let\ITEC@oldl@section\l@section
380 \let\ITEC@oldl@subsection\l@subsection
381 \def\l@chapter#1#2{\ITEC@oldl@chapter{#1}{#2}\cftbeforechapskip=3pt}
382 \def\l@section#1#2{\ITEC@oldl@section{#1}{#2}\cftbeforechapskip=\ITEC@old-
   cftbeforechapskip\cftbeforesecskip=3pt}
    <sup>4</sup>Reference:http://tex.stackexchange.com/questions/89103/
```

remove-vertical-space-between-two-chapters-in-table-of-contents-in-latex

```
383 \def\l@subsection#1#2{\ITEC@oldl@subsection{#1}{#2}\cftbeforesecskip=\ITEC@old-
   cftbeforesecskip}
     Set LOF LOT style. <sup>5</sup>
384 \renewcommand*\cftfigpresnum{\figurename^}
  \newlength{\ITEC@cftfignumwidth@tmp}
  \settowidth{\ITEC@cftfignumwidth@tmp}{\cftfigpresnum}
   \addtolength{\cftfignumwidth}{\ITEC@cftfignumwidth@tmp}
   \renewcommand{\cftfigaftersnumb}{\quad~}
   \renewcommand*\cfttabpresnum{\tablename^}
  \newlength{\ITEC@cfttabnumwidth@tmp}
  \settowidth{\ITEC@cfttabnumwidth@tmp}{\cfttabpresnum}
  \addtolength{\cfttabnumwidth}{\ITEC@cfttabnumwidth@tmp}
393 \renewcommand{\cfttabaftersnumb}{\quad~}
```

## **Head & Foot Style**

```
394 \let\ps@plain\ps@fancy
  \pagestyle{fancy}
396 \fancyhf{}
  \renewcommand{\headrulewidth}{0.4pt}
  \fancyhead[L]{\textbf{\leftmark}}
   \fancyhead[R]{\rightmark}
   \fancyfoot[C]{\thepage}
   \renewcommand{\chaptermark}[1]{
     \markboth{
402
       \ifITEC@inappendix
403
         \appendixname~\thechapter
404
       \else
   (class-zh) 第\zhnumber{\thechapter}章
   ⟨class-en⟩Chapter~\thechapter
       \fi
408
     \hspace{.8em}#1}{}
409
  }
410
  \renewcommand{\sectionmark}[1]{
411
     \StrLen{#1}[\ITEC@secmark@tmplen]
412
     \ifthenelse{\ITEC@secmark@tmplen<20}
413
     {\markright{\thesection\hspace{.8em}\emph{#1}}}
     {\markright{}}
415
416 }
```

<sup>&</sup>lt;sup>5</sup>Reference:http://www.latex-community.org/viewtopic.php?f=5&t=1838

## 7.10 List Environment Style

```
417 \setlist{noitemsep,partopsep=0pt,topsep=.8ex}
418 \setlist[1]{labelindent=\parindent}
419 \setlist[enumerate,1]{label=\arabic*.,ref=\arabic*}
420 \setlist[enumerate,2]{label*=\arabic*,ref=\theenumi.\arabic*}
421 \setlist[enumerate,3]{label=\emph{\alph*}),ref=\theenumii\emph{\alph*}}
422 \setlist[description]{font=\bfseries
423 \class-zh\\HEI
424 }
```

## 7.11 Footnote Style

425 \MakePerPage{footnote}

# 8 Variables Setting

A command to set report number.

```
\reportno
          426 \def\reportno#1{\gdef\ITEC@reportno{#1}}
          427 \reportno{}
            (End definition for \reportno. This function is documented on page 13.)
\zhtitle Commands to set the title.
\entitle 428 (*class-zh)
   \title 429 \def\zhtitle#1{\gdef\ITEC@zhtitle{#1}\hypersetup{pdftitle={#1}}}
          430 \def\entitle#1{\gdef\ITEC@entitle{#1}}
          431 \det title#1#2{\left\{ xhtitle{#1}\right\}}
          432 \title{}{}
          433 (/class-zh)
          434 (*class-en)
          435 \def\title#1{\gdef\ITEC@entitle{#1}\hypersetup{pdftitle={#1}}}
          436 \title{}
          437 (/class-en)
            (End definition for \zhtitle, \entitle, and \title. These functions are documented on page
            13.)
\zhauthor Commands to set the author.
\ensuremath{\mbox{\color}}_{438} \ensuremath{\mbox{\color}}_{438}
  \author 439 \def\zhauthor#1{\gdef\ITEC@zhauthor{#1}\hypersetup{pdfauthor={#1}}}
          440 \def\enauthor#1{\gdef\ITEC@enauthor{#1}}
          441 \def\author#1#2{\zhauthor{#1}\enauthor{#2}}
```

```
442 \author{}{}
              443 (/class-zh)
              444 (*class-en)
              445 \def\author#1{\gdef\ITEC@enauthor{#1}\hypersetup{pdfauthor={#1}}}
              446 \author{}
              447 (/class-en)
                (End definition for \zhauthor, \enauthor, and \author. These functions are documented on
                page 13.)
         \date A command to set the date and several commands to display date.
\zhdateformat 448 \def\date#1#2#3{
\endateformat 449
                    \setdate{#1}{#2}{#3}
  \dateformat 450 }
              451 \setdatetoday
              452 (*class-zh)
              453 \def\zhdateformat{~\thedateyear~年~\thedatemonth~月~\thedateday~日}
              454 \def\endateformat{\datedate}
              455 (/class-zh)
              456 (*class-en)
              457 \def\endateformat{\datedate}
              458 \let\dateformat\endateformat
              459 (/class-en)
                (End definition for \date and others. These functions are documented on page 14.)
\zhsupervisor Commands to set the supervisor.
\ensupervisor 460 \langle*class-zh\
  \supervisor 461 \def\zhsupervisor#1{\gdef\ITEC@zhsupervisor{#1}}
              462 \def\ensupervisor#1{\gdef\ITEC@ensupervisor{#1}}
              463 \def\supervisor#1#2{\zhsupervisor{#1}\ensupervisor{#2}}
              464 \supervisor{}{}
              465 (/class-zh)
              466 (*class-en)
              467 \def\supervisor#1{\gdef\ITEC@ensupervisor{#1}}
              468 \supervisor{}
              469 (/class-en)
                (End definition for \zhsupervisor, \ensupervisor, and \supervisor. These functions are
                documented on page 13.)
  \zhabstract Commands to set the abstract.
  \enabstract 470 (*class-zh)
    \abstract 471 \long\def\zhabstract#1{\long\gdef\ITEC@zhabstract{#1}}
              472 \long\def\enabstract#1{\long\gdef\ITEC@enabstract{#1}}
```

```
473 \long\def\abstract#1#2{\zhabstract{#1}\enabstract{#2}}
            474 \abstract{}{}
            475 (/class-zh)
            476 (*class-en)
            477 \long\def\abstract#1{\long\gdef\ITEC@enabstract{#1}}
            478 \abstract{}
            479 (/class-en)
              (End definition for \zhabstract, \enabstract, and \abstract. These functions are docu-
              mented on page 13.)
\zhkeywords Commands to set the keywords.
\enkeywords 480 (*class-zh)
  \keywords 481 \def\zhkeywords#1{\gdef\ITEC@zhkeywords{#1}\hypersetup{pdfkeywords={#1}}}
            482 \def\enkeywords#1{\gdef\ITEC@enkeywords{#1}}
            483 \def\keywords#1#2{\zhkeywords{#1}\enkeywords{#2}}
            484 \keywords{}{}
            485 (/class-zh)
            486 (*class-en)
            487 \def\keywords#1{\gdef\ITEC@enkeywords{#1}\hypersetup{pdfkeywords={#1}}}
            488 \keywords{}
            489 (/class-en)
              (End definition for \zhkeywords, \enkeywords, and \keywords. These functions are docu-
              mented on page 13.)
```

# 9 Specical Page

```
\frontmatter
 \mainmatter 490 \def\frontmatter{
 \backmatter 491
                  \clearpage
                  \@mainmatterfalse
                  \pagenumbering{Roman}
             494 }
             495 \def\mainmatter{
                  \clearpage
                  \@mainmattertrue
             497
                  \pagenumbering{arabic}
             498
                \def\backmatter{
                  \clearpage
             501
                  \@mainmatterfalse
             502
                  \settocdepth{chapter}
```

```
\hypersetup{bookmarksopenlevel=0}
505 }
 (End definition for \frontmatter, \mainmatter, and \backmatter. These functions are doc-
 umented on page 13.)
     Chinese title page.
506 (*class-zh)
507 \def\ITEC@zhtitlepage{
     \begin{center}
     \ifthenelse{\equal{\ITEC@reportno}{}}{
509
510
     }{
511
       \begin{flushright}
512
       {\Large \ttfamily No.~\ITEC@reportno}
513
       \end{flushright}
514
     }
515
     \vskip 2cm
516
     {\LARGE \ITEC@zhtitletitle}\\[0.5cm]
     \left(0.5mm\right)\
518
     {\LARGE \bfseries \sffamily \HEI \ITEC@zhtitle}\\[0.35cm]
519
     \left(\frac{1inewidth}{0.5mm}\right) \ [3.5cm]
520
     \begin{minipage}[t]{0.8\textwidth}
521
     \TurnOffTabFontSetting
522
     \Large
523
     \setlength{\extrarowheight}{5pt}
524
     \begin{tabular}{r0{: }1}
525
       \parbox[t][][t]{6em}{\raggedleft \emph{\ITEC@zhauthortitle}} &
526
       \parbox[t][][t]{15em}{\ITEC@zhauthor}
       \ifthenelse{\equal{\ITEC@zhsupervisor}{}}{}{
528
529
       \parbox[t][][t]{6em}{\raggedleft \emph{\ITEC@zhsupervisortitle}} &
530
       \parbox[t][][t]{15em}{\ITEC@zhsupervisor}
531
       }
532
     \end{tabular}
533
     \TurnOnTabFontSetting
534
     \end{minipage}
535
     \vfill
     {\Large \zhdateformat}
     \end{center}
538
539 }
540 (/class-zh)
```

```
541 \def\ITEC@entitlepage{
                \begin{center}
                \ifthenelse{\equal{\ITEC@reportno}{}}{
          543
                  \null
          544
               }{
          545
                  \begin{flushright}
          546
                  {\Large \ttfamily No.~\ITEC@reportno}
          547
                  \end{flushright}
          548
                }
          549
                \vskip 1.5cm
          550
                {\Large \scshape \ITEC@entitletitle}\\[0.5cm]
                \left(0.5mm\right)\
          552
                {\LARGE \bfseries \sffamily \ITEC@entitle}\\[0.35cm]
          553
                \left(\frac{1 - 5mm}{3.5cm}\right)
          554
                \begin{minipage}[t]{0.8\textwidth}
          555
                \TurnOffTabFontSetting
          556
                \Large
          557
                \setlength{\extrarowheight}{5pt}
          558
                \begin{tabular}{r@{~:~}1}
          559
                  \parbox[t][][t]{6em}{\raggedleft \emph{\ITEC@enauthortitle}} &
          560
                  \parbox[t][][t]{15em}{\ITEC@enauthor}
          561
                  \ifthenelse{\equal{\ITEC@ensupervisor}{}}{}
          562
          563
                  \parbox[t][][t]{6em}{\raggedleft \emph{\ITEC@ensupervisortitle}} &
          564
                  \parbox[t][][t]{15em}{\ITEC@ensupervisor}
          565
                  }
          566
                \end{tabular}
          567
                \TurnOnTabFontSetting
          568
                \end{minipage}
          569
                \vfill
          570
                {\Large \endateformat}
                \end{center}
          572
          573 }
\maketitle Commands to generate title page.
\makecover 574 \def\maketitle{
                \begingroup
          575
                \hypersetup{allcolors=black}
          576
                \let\ITEC@oldthepage\thepage
          578 (class-zh)\def\thepage{封面}
```

English title page.

```
\langle {\sf class\text{-}en} \rangle \\ {\sf def} \\ {\sf thepage} \\ {\sf Titlepage} \\
                     \begin{titlepage}
                  ⟨*class-zh⟩
               581
                       \thispagestyle{empty}
               582
                       \ITEC@zhtitlepage
               583
                       \clearpage
                   ⟨/class-zh⟩
                       \thispagestyle{empty}
               586
                       \ITEC@entitlepage
               587
                     \end{titlepage}
               588
                     \let\thepage\ITEC@oldthepage
                     \setcounter{page}{1}
                     \endgroup
               591
               592 }
               593 \let\makecover\maketitle
                 (End definition for \maketitle and \makecover. These functions are documented on page 14.)
                     Chinese abstract page.
               594 (*class-zh)
                  \def\ITEC@zhabstractpage{
                     \chapter*{\ITEC@zhabstractname}
               596
                     \ITEC@zhabstract \par
               597
                     \vskip 1.2ex
               598
                     \noindent\hei{\ITEC@zhkeywordstitle}\hspace{.8em} \ITEC@zhkeywords
               600 }
               601 (/class-zh)
                     English abstract page.
                  \def\ITEC@enabstractpage{
                     \chapter*{\ITEC@enabstractname}
               603
                     \ITEC@enabstract \par
               604
                     \vskip 1.2ex
                     \noindent\textbf{\ITEC@enkeywordstitle}\hspace{.8em} \ITEC@enkey-
               606
                  words
               607 }
                 A command to generate abstract page.
\makeabstract
                  \def\makeabstract{
                     \phantomsection
                  (*class-zh)
               610
                     \addcontentsline{toc}{chapter}{\ITEC@zhabstractnamenospace}
               611
                     \markboth{\ITEC@zhabstractnamenospace}{}
               612
                     \ITEC@zhabstractpage
               613
```

```
\clearpage
                    (/class-zh)
                  616 (*class-en)
                       \addcontentsline{toc}{chapter}{\ITEC@enabstractname}
                       \markboth{\ITEC@enabstractname}{}
                  618
                     ⟨/class-en⟩
                       \ITEC@enabstractpage
                       \clearpage
                  622 }
                    (End definition for \makeabstract. This function is documented on page 14.)
                    A command to generate table of contents.
\tableofcontents
                  623 \let\ITEC@tableofcontents\tableofcontents
                     \def\tableofcontents{
                     ⟨*class-zh⟩
                       \pdfbookmark{\contentsnamenospace}{\contentsnamenospace}
                  626
                       \markboth{\contentsnamenospace}{}
                     ⟨/class-zh⟩
                  628
                     ⟨*class-en⟩
                       \pdfbookmark{\contentsname}{\contentsname}
                       \markboth{\contentsname}{}
                  631
                     ⟨/class-en⟩
                  632
                       \let\ITEC@oldmarkboth\markboth
                  633
                       \renewcommand\markboth[2]{}
                       \ITEC@tableofcontents
                  635
                       \let\markboth\ITEC@oldmarkboth
                  636
                       \clearpage
                  637
                  638 }
                    (End definition for \tableofcontents. This function is documented on page 14.)
                    A command to generate acknowledge page.
                     \newenvironment{ack}{
                       \clearpage
                  640
                       \phantomsection
                  641
                     (*class-zh)
                  642
                       \addcontentsline{toc}{chapter}{\ITEC@acknamenospace}
                       \markboth{\ITEC@acknamenospace}{}
                  644
                     ⟨/class-zh⟩
                     ⟨*class-en⟩
                       \addcontentsline{toc}{chapter}{\ITEC@ackname}
                  647
                       \markboth{\ITEC@ackname}{}
```

```
649 ⟨/class-en⟩
650 \chapter*{\ITEC@ackname}
651 \begingroup
652 \normalsize
653 }{
654 \endgroup
655 }
```

publications A command to generate publications page.

```
\newenvironment{publications}{
     \clearpage
657
     \ifITEC@inappendix
658
       \chapter{\ITEC@publicationtitle}
       \markboth{\appendixname\,\thechapter\hspace{1em}\ITEC@publicationtitle}{}
660
     \else
661
       \phantomsection
662
       \addcontentsline{toc}{chapter}{\ITEC@publicationtitle}
       \chapter*{\ITEC@publicationtitle}
       \markboth{\ITEC@publicationtitle}{}
665
666
     \begin{enumerate}[labelindent=0pt,label={[\arabic*]}]
667
668 }{
     \end{enumerate}
670 }
```

\bibliography A command to generate bibliography page. We use thubib.bst in thuthesis to typeset bibliography in Chinese version template. And use IEEEtran in English version template.

```
671 (*class-zh)
672 \def\thudot{\unskip.}
673 \def\thumasterbib{[Master Thesis]}
674 \def\thuphdbib{[Doctor Thesis]}
675 \bibliographystyle{thubib}
676 (/class-zh)
   ⟨class-en⟩\bibliographystyle{IEEEtran}
   \let\ITEC@bibliography\bibliography
   \def\bibliography#1{
     \clearpage
680
     \phantomsection
681
     \addcontentsline{toc}{chapter}{\bibname}
682
     \markboth{\bibname}{}
```

```
684 (class-zh)\ITEC@bibliography{#1}
            ⟨class-en⟩\ITEC@bibliography{IEEEabrv,#1}
         686 }
           (End definition for \bibliography. This function is documented on page 14.)
appendix The appendix environment.
         687 \newif\ifITEC@inappendix
         688 \ITEC@inappendixfalse
            \newif\ifITEC@appendix@resetmainmatter
            \ITEC@appendix@resetmainmatterfalse
            \renewenvironment{appendix}{
              \if@mainmatter
         692
                \ITEC@appendix@resetmainmatterfalse
         693
                \ITEC@appendix@resetmainmattertrue
                \@mainmattertrue
         696
         697
              \appendixtitletocon
         698
              \appendices
              \titleformat{\chapter}
         700
         701
                \bfseries
         702
            ⟨class-zh⟩\HEI
         703
                \centering
                \changefont{size=18pt}
         705
              }
         706
              {\appendixname\,\thechapter}
         707
              {1em}
              {}
              \ITEC@inappendixtrue
         710
         711 }{
              \endappendices
         712
              \ITEC@inappendixfalse
         713
              \ifITEC@appendix@resetmainmatter
         714
                \ITEC@appendix@resetmainmatterfalse
         715
                \@mainmatterfalse
         716
              \else\fi
         718 }
```

\listoffigures A command to generate list of figures.

719 \let\ITEC@listoffigures\listoffigures

```
\clearpage
                   \ifITEC@inappendix
              722
                     \addtocounter{chapter}{1}
              723
                     \def\listfigurename{\appendixname\,\thechapter\hspace{1em}\ITEC@listfigurename}
              724
              725
                     \def\listfigurename{\ITEC@listfigurename}
              726
                   \fi
              727
                   \phantomsection
              728
                   \ifITEC@inappendix
              729
                     \addcontentsline{toc}{chapter}{\thechapter\hspace{1em}\ITEC@list-
                 figurename}
                   \else
              731
                     \addcontentsline{toc}{chapter}{\listfigurename}
              732
                   \fi
              733
                   \markboth{\listfigurename}{}
              734
                   \let\ITEC@oldmarkboth\markboth
              735
                   \renewcommand\markboth[2]{}
              736
                   \ITEC@listoffigures
              737
                   \let\markboth\ITEC@oldmarkboth
                   \def\listfigurename{\ITEC@listfigurename}
              740 }
                (End definition for \listoffigures. This function is documented on page 14.)
\listoftables A command to generate list of tables.
              741 \let\ITEC@listoftables\listoftables
                 \def\listoftables{
                   \clearpage
                   \ifITEC@inappendix
                     \addtocounter{chapter}{1}
              745
                     \def\listtablename{\appendixname\,\thechapter\hspace{1em}\ITEC@listtablename}
              746
              747
                     \def\listtablename{\ITEC@listtablename}
              748
                   \fi
              749
                   \phantomsection
              750
                   \ifITEC@inappendix
              751
                     \addcontentsline{toc}{chapter}{\thechapter\hspace{1em}\ITEC@list-
                 tablename}
                   \else
                     \addcontentsline{toc}{chapter}{\listtablename}
              754
                   \fi
              755
```

720 \def\listoffigures{

```
756 \markboth{\listtablename}{}
757 \let\ITEC@oldmarkboth\markboth
758 \renewcommand\markboth[2]{}
759 \ITEC@listoftables
760 \let\markboth\ITEC@oldmarkboth
761 \def\listtablename{\ITEC@listtablename}
762 }
(End definition for \listoftables. This function is documented on page 14.)
```

## 10 Other Command

## \email

```
763 \def\email#1{
764 \href{mailto:#1}{\texttt{#1}}
765 }
(End definition for \email. This function is documented on page 15.)
766 \( \/ \class \rangle \)
```

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