The LaTeX IIT Ropar BTech Project template

IT Services

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This template has been written to help students write BTech Project (BTP)reports conforming to the requirements of the Department of Computer Science & Engineering, Indian Institute of Technology Ropar. Originally this style has been written by Harish Bhanderi for Engineering Department for Cambridge University. This template includes:

- all necessary directories appropriately referenced in the main `Report.tex` document;
- a sample Report directory structure with sub-directories (appropriately referenced) for figures;
- handling of .eps, .ps and .png, .jpg and .pdf graphics files;
- a Makefile to produce .dvi, .ps and .pdf files;
- compiled Report.pdf file;

Please send your queries and suggestions to (`gripe@iitrpr.ac.in`).

1 Installation

Download the Tarball (1.1 MB) from `http://intranet.iitrpr.ac.in/`. You needn't install the class file in with the LaTeX distribution. Once you've downloaded the files, try changing the name of `Report.pdf` then running `make Report.pdf` to produce a new version. If you get output ending with something like

```
Output written on Report.pdf (19 pages, 224756 bytes).
Transcript written on Report.log.
```

then a `Report.pdf` file has been produced that you can read with Acrobat Reader, etc, and you're ready to write your document.

2 Packages

The class uses several packages. Here's a list of the main ones with the release that the template has been tested with

- amssymb v2.2d
- babel v3.8l
- color v1.0j
- eucal v2.2d
- fancyhdr 3.2
- footmisc v5.4a
- graphicx v1.0f
- hyperref v1.2
- ifpdf v1.6
- ifthen v1.1c

- natbib 8.1
- nomencl v4.2
- setspace 6.7
- tocbibind v1.5g

3 in particular are worth mentioning because they control features that you might wish to change

- *hyperref* - the hyperref packages provides most of the support for online PDF. It's extensively documented at `http://www.tug.org/applications/hyperref/manual.html`. The class uses these options for PDF output

```
\usepackage[ pdftex, plainpages = false, pdfpagelabels,
             pdfpagelayout = useoutlines,
             bookmarks,
             bookmarksopen = true,
             bookmarksnumbered = true,
             breaklinks = true,
             linktocpage,
             pagebackref,
             colorlinks = true,
             linkcolor = blue,
             urlcolor  = blue,
             citecolor = red,
             anchorcolor = green,
             hyperindex = true,
             hyperfigures
```

  The extra meta information for the PDF document is provided using the `pdfinfo` command. For Postscript production the options are

```
\usepackage[ dvips,
             bookmarks,
             bookmarksopen = true,
             bookmarksnumbered = true,
             breaklinks = true,
             linktocpage,
             pagebackref,
             colorlinks = true,
             linkcolor = blue,
             urlcolor  = blue,
             citecolor = red,
             anchorcolor = green,
             hyperindex = true
```

  For the front pages you also need to set some other variables

```
\author
\collegeordept
\university
\crest
\degree
\degreedate
\city
```

- *fancyhdr* - this controls headers and footers. This package uses the following options

```
\pagestyle{fancy}
\renewcommand{\chaptermark}[1]{\markboth{\MakeUppercase{\thechapter. #1 }}{}}
\renewcommand{\sectionmark}[1]{}
\fancyhf{}
\fancyhead[RO]{\bfseries\rightmark}
\fancyhead[LE]{\bfseries\leftmark}
\fancyfoot[C]{\thepage}
\renewcommand{\headrulewidth}{0.5pt}
\renewcommand{\footrulewidth}{0pt}
\addtolength{\headheight}{0.5pt}
\fancypagestyle{plain}{
  \fancyhead{}
  \renewcommand{\headrulewidth}{0pt}
}
```

3 Location of Graphics files

For PDF production, PNG, PDF and JPG graphics files are sought in ThesisFigs/PNG/, ThesisFigs/PDF/ or ThesisFigs/. For Postscript output, EPS files are sought in in ThesisFigs/EPS/ and ThesisFigs/

4 Frequently Asked Questions

Many problems can be fixed by removing all the intermediate files and re-processing. On Unix, `make clean` and `make latexclean` tidy up.

- *How do you make the references not red and the links to Figures not blue in the PDF?* - The class's options for the hyperref package include

  ```
  colorlinks = true,
  linkcolor = blue,
  urlcolor  = blue,
  citecolor = red,
  ```

  You can override these in your Report file - either set the colors to black or set colorlinks to false. For example you could do

  ```
  \hypersetup{colorlinks = false}
  ```

- *How can I have numbered references sorted by order of their appearance in the document?* - In the Report.tex file, try

  ```
  \bibliographystyle{unsrtnat}
  ```

  or

  ```
  \bibliographystyle{unsrt}
  ```

- *Some headers aren't quite on the right page. Why?* - (the following is from the fancyhdr documentation) note that the * forms of the `\chapter` etc. commands do not call the mark commands. So if you want your preface to set the header info but not be numbered nor be put in the table of contents, you must issue the `\markboth` command yourself, e.g.

  ```
  \chapter*{Preface\markboth{Preface}{}}
  ```

  Entering the `\markboth` command inside the `\chapter*` insures that the mark will not be separated from the title by a page break.

- *I'm not getting any References* - The usage of the files is geared toward Unix command-line operation. Typing the recommended `make thesis.pdf` will run `pdflatex` and `bibtex` a few times. If you're using a computer that doesn't have a `make` command you may have to run the usual sequence of commands manually

- *I get "Error: ! Package footmisc Error: Can't define commands for footnote symbol." - what shall I do?* - maybe your `footmisc` package is out of date. Versions v5.3c and v5.5a should be ok.
- *I get "Error: ! Package natbib Error: Bibliography not compatible with author-year citations." - what shall I do?* - maybe some of your references in `References/references.bib` file are not compatible with author year citations, just press enter to generate the pdf file. It will give error at the end but will generate the correct pdf file.
- *When the nomenclature section stretches over a single page why is its table of contents entry incorrect?* - You can fix it by moving the `\addcontentsline` command from `thesis.tex` to `thesis.nls` (Kris Fields)