

# Mian UTHM LaTeX code

```
\documentclass[12pt,a4paper,oneside]{report}
% =====
% 1) PAGE LAYOUT (University requirement)
% =====
\usepackage[a4paper,left=4cm,right=2.5cm,top=2.5cm,bottom=2.5cm]{geometry}
% =====
% 2) LINE SPACING (1.5)
% =====
\usepackage{setspace}
\setstretch{1.5}
\usepackage{wrapfig}
% =====
% 3) BASIC PACKAGES
% =====
\usepackage{multicol}
\usepackage{float}
\usepackage{graphicx}
\usepackage{amsmath}
\usepackage{algorithm}
\usepackage{algorithmic}
\usepackage{tocloft}
\usepackage{fontspec}
% =====
% Page Landscape
% =====
\usepackage{lscap} % pdflscape

% =====
% 4) TABLE PACKAGES
% =====
\usepackage{tabularx}
\usepackage{array}
\usepackage{multirow}
% =====
% 5) TEXT ALIGNMENT
% (define safe fallbacks before using TOC stuff)
\providecommand{\TOCprelim}[1]{#1}
\providecommand{\FrontTOC}[1]{%
  \addcontentsline{toc}{chapter}{#1}%
}
\makeatletter
\renewcommand{\FrontTOC}[1]{%
  \begingroup
  \edef\FrontTOCpage{\roman{page}}% &lt;-- literal roman text (e.g., xiii)
  \phantomsection% correct hyperlink target
  \addtocontents{toc}{%
    \protect\contentsline{chapter}{%
      \protect\TOCprelim{%
        \protect\makebox[\textwidth][c]{%
          \parbox{5.9cm}{\raggedright #1}%
        }%
      }%
    }{\FrontTOCpage}{\@currentHref}%
  }%
  \endgroup
}
\makeatother

\usepackage{amssymb}
\usepackage{enumitem}
\usepackage{ragged2e}
\AtBeginDocument{\justifying}
% =====
% 6) FONT (Times New Roman 12pt)
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% =====
\usepackage{fontspec}
\setmainfont{Times New Roman}
% =====
% 7) PARAGRAPH RULES
% =====
\setlength{\parindent}{1.25cm}
\setlength{\parskip}{0pt}

%=====disables automatic word hyphenation
\usepackage[none]{hyphenat}
\emergencystretch=3em

\newcommand{\TermLabel}[1]{\hbox to 1.6em{\hfil #1\hfil}}
% =====
% 8) HEADING FORMATTING
% =====
\usepackage{titlesec}
\titleformat{\chapter}[display]
{\centering\bfseries\fontsize{12}{18}\selectfont}
{\MakeUppercase{\chaptername}\ \thechapter}
{1\baselineskip}
{\MakeUppercase}

\titlespacing*{\chapter}{0pt}{3\baselineskip}{1\baselineskip}
\titleformat{\section}
{\bfseries\fontsize{12}{16}\selectfont}
{\thesection}{1.2em}{}
\titlespacing*{\section}{0pt}{1\baselineskip}{1\baselineskip}
\titleformat{\subsection}
{\bfseries\fontsize{12}{14}\selectfont}
{\thesubsection}{1.2em}{}
\titlespacing*{\subsection}{0pt}{1\baselineskip}{1\baselineskip}
\titleformat{\subsubsection}
{\bfseries\fontsize{12}{14}\selectfont}
{\thesubsubsection}{1.2em}{}
\titlespacing*{\subsubsection}{0pt}{1\baselineskip}{1\baselineskip}
% =====
% 9) TABLE OF CONTENTS DEPTH
% =====
\setcounter{tocdepth}{2}
\usepackage{tocloft}
\usepackage[hidelinks,bookmarks=false]{hyperref}
% =====
% 10) FIGURE/TABLE CAPTIONS
% =====
\usepackage{caption}
\captionsetup{
font=normalsize,
labelfont=normalfont,
textfont=normalfont,
justification=centering
}
% &gt;&gt;&gt; Bold Table
\captionsetup[table]{labelfont=bf, textfont=normalfont, labelsep=colon}
\captionsetup[figure]{labelfont=bf, textfont=normalfont, labelsep=colon}
% =====
% 11) PAGE NUMBERING CONTROL
% =====
\newcommand{\blankpage}{
\clearpage
\thispagestyle{empty}
\null
\clearpage
}
% =====
\setcounter{secnumdepth}{3}
\setcounter{tocdepth}{2}

```

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\emergencystretch=3em
\hbadness=9999
\hfuzz=1pt

\usepackage{etoolbox}
\patchcmd{\chapter}{\thispagestyle{plain}}{\thispagestyle{empty}}{}{}

%=====
% --- Force page number ON for References first page only ---
\makeatletter
\patchcmd{\thebibliography}
{\chapter*{\bibname}}
{\chapter*{\bibname}\thispagestyle{plain}}
{}{}
\makeatother
%=====

%=====
% --- Restore page number on appendix first pages ---
\usepackage{etoolbox}
\makeatletter
\appto\appendix{%
  \patchcmd{\chapter}{\thispagestyle{empty}}{\thispagestyle{plain}}{}{}%
}
\makeatother
%=====

\begin{document}
% =====
% FRONT MATTER (UTHM)
% Requirement:
% - second_frontpage = i (COUNTED) but HIDDEN
% - signature_student = ii (VISIBLE) and onwards visible
% - TOC shows roman i, ii, iii... correctly
% =====

\cleardoublepage
\pagenumbering{roman}

% ---- Pages BEFORE second_frontpage (no TOC numbering requirement stated here)
% If you want them NOT counted, keep them before roman starts.
% If you want them counted too, move them below this line.

\input{frontmatter/frontpage}
\FrontTOC{TITLE}
\clearpage

\blankpage

\input{frontmatter/declaration1}
\FrontTOC{STUDENT DECLARATION}
\thispagestyle{empty}
\clearpage

\input{frontmatter/examination_approval}
\thispagestyle{empty}
\clearpage

% ----- FORCE second_frontpage to be i -----
\setcounter{page}{1}

\input{frontmatter/second_frontpage}
\thispagestyle{empty} % hide printed &quot;i&quot;
\clearpage

% ----- signature_student becomes ii and visible -----
\pagestyle{plain}

\input{frontmatter/signature_student}
\clearpage

\input{frontmatter/dedication}
\FrontTOC{DEDICATION}
\clearpage

\input{frontmatter/acknowledgement}
\FrontTOC{ACKNOWLEDGEMENT}
\clearpage

\input{frontmatter/abstract}
\FrontTOC{ABSTRACT}

```

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\clearpage
\input{frontmatter/abstrak}
\FrontTOC{ABSTRAK}
\clearpage
% Print TOC (styled by content.tex)
\input{content.tex}
\FrontTOC{CONTENTS}
\clearpage

\input{frontmatter/listoftables}
\FrontTOC{LIST OF TABLES}
\clearpage

\input{frontmatter/listoffigures}
\FrontTOC{LIST OF FIGURES}
\clearpage

\input{frontmatter/listofsymbols}
\FrontTOC{LIST OF SYMBOLS AND ABBREVIATIONS}
\clearpage

\input{frontmatter/listofappendices}
\FrontTOC{LIST OF APPENDICES}
\clearpage

% ----- Main text -----
\pagenumbering{arabic}
\setcounter{page}{1}
\pagestyle{plain}

\input{chapters/chapter1}
\input{chapters/chapter2}
\input{chapters/chapter3}
\input{chapters/chapter4}
\input{chapters/chapter5}

% =====
% REFERENCES
% =====

\cleardoublepage
\renewcommand{\bibname}{REFERENCES}

% --- Write TOC entry using TOCmain (flush-left + page number) ---
\addtocontents{toc}{%
  \protect\contentsline{chapter}{\protect\TOCmain{REFERENCES}}{\thepage}{%
}

\begingroup
\setstretch{1.0}
\bibliographystyle{IEEEtran}
\bibliography{references}
\endgroup

% =====
% APPENDICES
% =====

\appendix
\input{appendices/appendixA}
\clearpage

% =====
% PUBLICATIONS
% =====

\appendix
\input{frontmatter/publication}
\clearpage

\input{frontmatter/vitae}

\end{document}

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