

SCHEDULE

-----Day1-----

Module 01: Installing MikTeX on Windows. (3 Hrs)

- Installing MikTeX on Windows
- Writing basic LaTeX document using TeXworks editor
- Configuring MikTeX to download missing packages

Module2- Report Writing (2 Hrs)

- Report style having chapter,
- Section and subsection article style having section,
- Automatic generation of table of contents,
- toc file to store the information that goes into the table of contents,
- Automatic numbering of section numbers,
- Appendix; its appearance in report and article style exiting from latex when a compilation error occurs.

Module 3- Letter Writing (2 Hrs)

- Letter document class
- From address;
Automatic generation and format of date
Starting a new line with double slash
- To address;
Starting a new paragraph with a blank line itemize environment for bullet points
enumerate environment for numbered points.
- Closing statement
- Signature
- Carbon copy

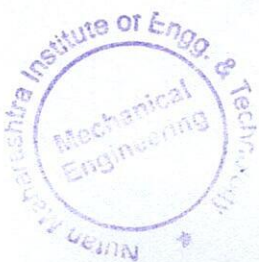
-----Day2-----


Module 4 - Mathematical Typesetting (3 Hrs)

- \$ sign to begin and end mathematical expressions
- Creating alpha, beta, gamma and delta
- Space being used as a terminator of symbols, Creating spaces in mathematical formulae
- Difference in font of text and formula & Difference in the minus sign in text and in formula
- frac command to create fractions, Subscripts and superscripts
- Use of braces {} to demarcate arguments
- Not equal to, greater than or equal to, less than or equal to, much less than, Right arrow, left arrow, left right arrow, up arrow
- Integral sign, limits of an integral, Matrices of different rows and columns

Module5- Equations (2 Hrs)

- Creating an equation, Writing & Aligning multiple equations
- Ams math package \$ mode, align environment intertext command
- Unnumbered align environment
- Creating matrices in LaTeX, Label command, Cross referencing with ref command, Leslie Lamport's book




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Module6– Numbering Equations (2 Hrs)

- Amsmath numbering equations
- Align environment, no number command, labeling equations with the label command
- Cross referencing equations with the ref command, case dependence of variables in label command
- Taking help from stack exchange, learning from ltx-primer.pdf, typing if-else with cases command

-----Day3-----

Module 7– Tables and Figures (2 Hrs)

- Creating tables and figures in LaTeX

Module 8– Beamer (2 Hrs)

- Creating a presentation using Beamer

Module9- Bibliography (3Hrs)

- Creating Bibliography in LaTeX

-----Day4-----

Module10– Feedback diagram with Maths (2 Hrs)

- Open the .fig file saved in the feedback control tutorial
- Put $G(z) = \frac{z}{z-1}$ in the second block diagram
- Choose the special flag, Save and export it as combined tex and pdf
- Show that if "special" is not chosen, we get only text , Change /frac into /dfrac
- Show that at the time of compilation, dfrac unknown error, Include \usepackage{amsmath} in the tex file, Recompile it and show that the equation is now coming properly
- Use pdfcrop to trim the pdf file, mention Briss

Module11- New command in LaTeX (2 Hrs)

- What is a command? Different types of commands with examples
- Defining a new command, Defining short commands for long repeated input.
- Commands with parameter, Passing parameters to the commands defined
- Renew command, Redefining the existing commands to the required output

Module12– New environment in LaTeX (3 Hrs)

- What is an environment; Defining a new environment
- Defining environments with parameters
- Renew environment, Redefining an existing environment to the required output

-----Day5-----

Module13– Writing Style Files in LaTeX (2 Hrs)

- About LaTeX Styles files., Writing a Style file for LaTeX., Importing a Style file in LaTeX.
- Defining a standard Style file for LaTeX.
- New command in LaTeX.new environment in LaTeX., Require Package command in LaTeX. Use package command in LaTeX.
- Style files identification. Preliminary declarations of a Style file, Needs TeXFormat.,

Provides Package.

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Module14– Indic Language Typesetting in LaTeX (2 Hrs)

- Typeset a document in Indic language using XeLaTeX.
- Indic language fonts bundle.Installing Indic language Fonts. Installing Nirmala UI Fonts.XeLaTeX Compiler.
- Using Fontspec package. Using Polyglossia package.
- Select language command.
- Set default language in LaTeX. Set other language in LaTeX.

Module15– Beamer Themes and Animation in LaTeX (3Hrs)

- About Beamer Theme Matrix, Add Beamer Themes, Add Beamer Color Themes
- Usage of Warsaw and Madrid Themes, Usage of Beaver and Crane Color Themes
- Navigating between slides using the Section Title, Navigating between slides using the Sub section Title
- Text Animations using Overlay command
- Overlay – onslide, Overlay – uncover, Overlay – only




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