



PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE MARY MATHA ARTS & SCIENCE COLLEGE

MANANTHAVADY

(Govt. Aided College, Affiliated to Kannur University & Managed by the Catholic Diocese of Mananthavady)
A NAAC Accredited Institution with B++ Grade

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CERTIFICATE COURSE

LATEX FOR PROJECT REPORT GENERATION AND PRESENTATION

Course Code	Theory	Practical	Time
CCCSLX23-24	15 Hours	20 Hours	3.30 PM - 4.30 PM

COURSE OBJECTIVE

The main motive is to impart knowledge and understanding about the LaTeX system, explain the procedure of LaTeX typesetting, and familiarize the participants with various document formats of LaTeX, enabling them to prepare research articles, thesis, books, and presentations confidently.

The broad objectives of the course are:

- Understand LaTeX, a document preparation system for high-quality typesetting.
- Getting Familiarized with the features of LaTeX.
- Gaining hands-on experience in becoming a user of LaTeX

COURSE OUTCOME

- Typesetting of complex mathematical formulae using LaTeX.
- Use tabular and array environments within LaTeX.
- Use various methods to either create or import graphics into a LaTeX document.
- Typesetting of journal articles, technical reports, and slide presentations.
- Automatic generation of a table of contents, bibliographies, and indexes.

SYLLABUS

Module 1:

Installation of MikeTeX, Online Overleaf access, TEX and its offspring, Creating a Title, Sections, Command names, and arguments, Labelling Table of Contents, Font Effects, Coloured Text, Font Sizes, Comments & Spacing Special Characters, Line breaking.

(9 Hours)

Module 2:

Lists, Tables, Figures - List of figures, Equations: Inserting Equations and Mathematical Symbols, Inserting References: Inserting the Bibliography Styles, Technical Report: Writing Thesis/project/report, Classes: article, book, report, beamer, slides. IEEtran.

(10 Hours)

Module 3:

Document Layout and Organization- Page Layout – Titles, Abstract Chapters, Sections, References, Equation References, citation. List-making environments, Table of contents, Generating new commands, Figure handling numbering, Generating index, Loading packages. Parts of the document: Abstract, Chapters, Appendix, Customized head and foot lines, Page numbering, Paragraph formatting, Single and double column pages

(8 Hours)

Module 4:

Introduction to Beamer, Main features: How to set the document class to `beamer`, its title, subtitle, author, institute, and date information, Bold, italics and underlining, Highlighting important sentences/words, Customizing presentation: themes (rows) and colorthemes (columns), Fonts and columns.

(8 Hours)

References:

1. Guide to LATEX, fourth edition, Helmut Kopka, Patrick W.Daly
2. https://www.overleaf.com/learn/latex/Beamer#Reference_guide
3. <https://mirror.niser.ac.in/ctan/macros/latex/contrib/beamer/doc/beameruserguide.pdf>