


Technical Writing Using LaTeX

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Introduction

- ▶ LaTeX is a powerful document preparation system for technical writing.
- ▶ It is widely used for scientific papers, reports, and presentations.
- ▶ Features include structured formatting, mathematical equations, tables, and bibliographies.



latex-logo.png

Unit I: Learning LaTeX

- ▶ **Installation:** TeX Live, MiKTeX, Overleaf.
- ▶ **Document Classes:** article, report, book, beamer.
- ▶ **Text Formatting:** Bold, italics, underline.
- ▶ **Lists:** Ordered and unordered lists.

Equations and Tables in LaTeX

Equation Example:

$$E = mc^2 \tag{1}$$

Table Example:

Variable	Value
X	10
Y	20

Table: Sample Table

Unit II: Scientific Manuscripts

- ▶ **Purpose:** Communicate research findings clearly.
- ▶ **Structure:**
 - ▶ Abstract: Summary of the research.
 - ▶ Introduction: Background and objectives.
 - ▶ Methods: Experimental setup.
 - ▶ Results: Findings and discussion.

Unit III: Writing Guidelines

- ▶ **Types of Documents:**

- ▶ Memos and Letters: Short official communication.
- ▶ Manuals: Technical guides and documentation.
- ▶ Resumes: Professional CVs.

- ▶ **Writing Style:** Clarity, conciseness, and formality.

Unit IV: Referencing Research Ethics

- ▶ **Citation Styles:** APA, IEEE, Chicago.
- ▶ **Bibliographic Indexes:** h-index, impact factor.
- ▶ **Research Ethics:**
 - ▶ Avoid plagiarism.
 - ▶ Properly cite sources.
 - ▶ Use similarity-checking tools (e.g., Turnitin).

Conclusion

- ▶ LaTeX is essential for structured and professional documentation.
- ▶ It supports citations, equations, tables, and presentations.
- ▶ Follow ethical guidelines and proper referencing in research.