

## Certificate Course – LaTeX

### 1. Course Objectives

Upon completion of the course, students will be able to do the following:

- ❖ Prepare a Latex document, to make scientific article and project report.
- ❖ To include figures and tables in a Latex document.
- ❖ To make conference proceedings and presentations.
- ❖ Use the preamble of LaTeX file to define document class and layout options.
- ❖ Use BibTeX to maintain bibliographic information and to generate a bibliography for a particular document.

### 2. Course Overview

This course covers document preparation using LaTeX typesetting program. The total hours for the course are 40 out of which 25hrs are for theory and 15 hrs are for practical sessions. Students should have a practical record. At the end of the course there will be a practical exam of 3 hrs duration for 80 marks. Internals is for 20 marks based on assignment, seminar and practical record.

### 3. Syllabus

Text Book : Latex for beginners Work book 5<sup>th</sup> edition, Document Reference:3722-2014, March 2014

#### **Module 1 : *Beginning typesetting using LaTeX.***

Basics: What is LaTeX, Basics for document structuring, preamble preparation, saving a folder.

Text Book: Chapter 1:-Sec 1.1, 1.2 and Chapter 2 Sec. 2.1

#### **Module 2: *Commands***

Latex commands for font colour, font size, make title, begin document, new page, sectioning.

Text Book: Chapter 2, Sec 2.3 to 2.6

#### **Module 3: *Tables and Figures***

Creating Tables, Inserting figures, enumeration list, itemized list, font effects, inserting equations.

Text Book: Chapter 3 Sec. 3.1 to 3.6, Chapter 6: Sec 6.1 to 6.3.

#### **Module 4: Reference and Citation**

Inserting references, Manual reference, Reference using BibTeX, citing reference.

Text Book: Chapter 7 Sec. 7.1 to 7.4

### 4. Suggested Reading

- (i) Learning Latex, D.F.Griffits, D.J.Higham, Siam, Philadelphia, 1997
- (ii) Martin J. Erickson and Donald Bindner, A Student's Guide to the Study, Practice, and Tools of Modern Mathematics, CRC Press, Boca Raton, FL, 2011.
- (iii) L. Lamport. LATEX: A Document Preparation System, User's Guide and Reference Manual. Addison-Wesley, New York, second edition, 1994.