MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act,1956

COURSE CONTENT

IT FOR MANAGERS- LAB								
II SEMESTER								
Course Code	**Category**	**Hours/Week**			**Credits**	**Maximum Marks**		
		L	**T**	**P**	**C**	**CIE**	**SEE**	**Total**
20MBA016	**SEMINAR**	-	-	2	1	100	-	100
Contact Classes: Nil	**Tutorial Classes:** Nil	**Practical Classes:** 45				**Total Classes:** 45		
Prerequisite: - Basic knowledge of computers and fundamental mathematics/statistics.								

COURSE OVERVIEW:

This course introduces the fundamentals of Information Technology and its role in supporting organizational decision-making through Information Systems and Decision Support Systems (DSS). It provides hands-on knowledge of MS Excel, covering worksheet management, formulas, functions, and data visualization techniques. The course further focuses on advanced data analysis tools such as correlation, regression, ANOVA, and what-if analysis using Excel. Additionally, it introduces LaTeX for professional documentation and mathematical expression. Overall, the course equips students with practical skills for data analysis, reporting, and technical documentation.

COURSE OBJECTIVES:

- To understand the fundamentals of Information Technology and Information Systems and their role in organizational decision-making.
- To develop proficiency in MS Excel basics, including worksheet management, formulas, and data handling techniques.
- To apply various Excel functions for data processing and analysis.
- To analyze data using advanced tools in Excel such as regression, ANOVA, pivot tables, and what-if analysis.
- To introduce LaTeX for preparing professional documents and mathematical expressions.

COURSE OUTCOMES: After Completion of the course, students should be able to

1. Demonstrate understanding of Information Systems role in organizations.
2. Apply MS Excel features for data management, analysis.
3. Utilize Excel functions for data manipulation, calculation.
4. Analyze data using MS Excel's statistical, analytical tools.
5. Create documents using LaTeX for mathematical expressions.

UNIT-I INTRODUCTION OF INFORMATION TECHNOLOGY

Concept of Information Technology and Information Systems, Role of Information Systems in an organization, Decision Support Systems (DSS), MS Excel as Spreadsheet based DSS - Features of MS Excel, Uses of MS Excel.

UNIT-II BASICS OF MS EXCEL

Worksheet Management, Cell referencing, Range – Naming and Building formulas, Auto sum feature in Excel, Basic operations in Excel - Sorting, Filters, Conditional Formatting, Working with Charts

UNIT-III WORKING WITH FUNCTIONS

Text Functions, Logical and Information Functions, Lookup Functions.

Date and Time Functions, Math and Statistical Functions, Financial Functions, Database Functions

UNIT-IV DATA ANALYSIS WITH MS EXCEL

Correlation, Regression - Linear, Exponential, Power curve, Multiple regression, Analysis of Variance - One - way Anova, Two - way Anova, What - if Analysis - Data Tables, Scenario Manager, Goal Seek,

Creating Pivot Tables and Pivot Charts

UNIT-V An introduction to LaTeX

Introduction, LaTeX documentation, Getting LaTeX, Documentation for AMS-LaTeX, Short Math Guide for LaTeX, Mathematical Expression, Mini Project

TEXT BOOKS:

1. V. Rajaraman, Introduction to Information Technology, PHI Learning, Latest Edition.
2. Wayne L. Winston, Microsoft Excel Data Analysis and Business Modeling, Microsoft Press, Latest Edition.
3. Kogent Learning Solutions, Excel 2019 in Simple Steps, Dreamtech Press.

REFERENCE BOOKS:

- Alexis Leon & Mathews Leon, Fundamentals of Information Technology, Vikas Publishing.
- Glyn Davis & Branko Pecar, Business Information Systems, Palgrave Macmillan.
- John Walkenbach, Excel Bible, Wiley Publications.
- Leslie Lamport, LaTeX: A Document Preparation System, Addison-Wesley

ELECTRONIC RESOURCES:

- https://www.youtube.com/watch?v=Vl0H-qTclOg
- https://www.youtube.com/watch?v=RVB3PBPxMWg
- https://www.youtube.com/watch?v=6aBYVh6a2jM
- https://www.youtube.com/watch?v=F4hW0Ckq8SI

MATERIALS ONLINE:

1. Open-ended experiments
2. Lab Manuals