II YEAR – III SEMESTER
COURSE CODE: 7MCE3C3

CORE COURSE-XII–DATA MINING AND DATA WAREHOUSING

Unit I

Data Mining And Data Preprocessing: Data Mining – Motivation – Definition – Data Mining on Kind of Data –Functionalities – Classification – Data Mining Task Primitives – Major Issues in Data Mining – Data Preprocessing – Definition – Data Clearing – Integration and Transformation – Data Reduction.

Unit II

Data Warehousing: Multidimensional Data Model –Data Warehouse Architecture – Data Warehouse Implementation –From data Warehousing to Data Mining – On Line Analytical Processing - On Line Analytical Mining.

Unit III

Frequent Patterns, Associations And Classification: The Apriori Algorithm – Definition of Classification and Prediction – Classification by Decision Tree Induction - Bayesian Classification – Rule Based Classification – Classification by Back Propagation – Lazy Learners – K-Nearest Neighbor – Other Classification Methods.

Unit IV

Cluster Analysis: Definition – Types of data in Cluster Analysis – Categorization of major Clustering Techniques – Partitioning Methods – Hierarchical Clustering – BIRCH - ROCK – Grid Based Methods – Model Based Clustering Methods – Outlier Analysis.

Unit V

Spatial, Multimedia, Text And Web Data: Spatial Data Mining – Multimedia Data Mining – Text Mining – Mining the World Wide Web – Data Mining Applications – Trends in Data Mining.

Text Book:

1. Jiawei Han and Micheline Kamber, "Data Mining Concepts and Techniques", 2nd Ed., Morgan Kaufmann Publishers, 2006.

Book for Reference:

1. Margret H. Dunham, "Data Mining: Introductory and Advanced Topics", Pearson Education, 2003.

♣♣♣♣♣♣♣♣♣