III YEAR – V SEMESTER
COURSE CODE: 7BCEE1A

ELECTIVE COURSE-I (A)–DATA MINING AND DATA WAREHOUSING

Unit I

INTRODUCTION: What is a data Warehouse? **DELIVERY PROCESS:** Data warehouse delivery method **SYSTEM PROCESSES:** Introduction – Overview – Typical process flow within a data warehouse – Extract and load process – Clean and transform data – Backup and archive process – Query management process. **PROCESS ARCHITECTURE:** Introduction – Load manager – Warehouse manager – Query manager

Unit II

SYSTEM AND DATA WARE HOUSE PROCESS MANAGERS Introduction – Why you need tools to manage a data warehouse – system managers – Data warehouse process managers – Load manager – Warehouse manager – Query manager **CAPACITY PLANNING, TUNING AND TESTING** Introduction – Process – Estimating the load **TUNING THE DATA WAREHOUSE** Introduction – Assessing performance – Tuning the data load – Tuning queries

Unit III

INTRODUCTION Introduction – Basics of Data Mining – Data Mining Versus Knowledge Discovery in Database – Data Mining Issues – Data Mining Metrics – Social Implications of Data Mining – Data Mining from a Database Perspective

Unit IV

RELATED CONCEPTS Databse/OLTP Systems – Fuzzy Sets and Fuzzy Logic – Information Retrieval – Decision Support Systems – Dimensional Modeling – OLAP – Web Search Engines **DATA MINING TECHNIQUES** Introduction – A Statistical Perpective on Data Mining – Similarity Measures – Decision Trees – Neural Networks – Genetic Algorithms

Unit V

ASSOCIATION RULES Introduction – Large Itemsets – Basic Algorithms – Parallel and Distributed Algorithms –Comparing Approaches – Incremental Rules – Advanced Association Rule Techniques – Measuring the Quality of Rule Techniques – Measuring the Quality of Rules

Text Books:
1. Data Warehouseing In The Real World,Sam Anahory, Dennis Murray, Pearson Education [LPE] ,Thirteenth Indian Reprint, 2005.
2. Data Mining Introductory And Advanced Topics, Margaret H.Dunham, Pearson Education [LPE] First Impression, 2006.

Books for Reference:
1. Insight Into Data Mining Theory And Practice By K.P.SomanShyamDiwakarV.Vijay PHI Publication
2. Data Warehousing, Data Mining And Olap By Alex Berson And Stephen J.SmithTMH Publication
3. Data Mining Introductory And Advanced Topics, Margaret H.Dunham, Pearson Education [LPE] First Impression, 2006

♣♣♣♣♣♣♣♣♣