FBEF812 DATA MINING (3-1-0)

Module - I (14 Hours)

Overview: Data warehousing, The compelling need for data warehousing, the Building blocks of data warehouse, data warehouses and data marts, overview of the components, metadata in the data warehouse, trends In data warehousing, emergence of standards, OLAP, web enabled data warehouse, Introduction to the data warehouse project, understanding data warehousing Architecture, Data warehousing implementation, from data warehousing to data mining.

Module - II (14 Hours)

Introduction to Data mining, Data mining Functionalities, Data preprocessing (data summarization, data cleaning, data integration and transformation, data reduction, data discretization),

Mining frequent patterns, associations, correlations (market basket analysis, the apriori algorithm, mining various kinds of association rules, from association mining to correlation analysis)

Classification: classification by decision tree induction, Rule based classification, classification by neural networks, classification by genetic algorithm

Module - III (12 Hours)

Cluster Analysis: types of data in cluster analysis, A categorization of major clustering methods(partitioning methods, hierarchical methods),clustering high dimensional data, outlier analysis

Advanced techniques: web mining, spatial mining, temporal mining, Data mining applications in (financial data Analysis, retail industry, telecommunication industry, Biological data analysis, intrusion detection, in other scientific applications)

Text Books:

1. Data warehousing Fundamentals: PaulrajPonniah, Willey India.
2. Data Mining: Concepts and techniques: J.Han and M.Camber, Elsevier.

Reference books:

1. Data Mining: Arun Pujari, University Press
2. Data Mining –a Tutorial based primer by R.J.Roiger, M.W.Geatz, Pearson Education.
3. Data Mining & Data Warehousing Using OLAP: Berson, TMH.
4. Data Warehousing: ReemaThareja, Oxford University Press

FMCC851 MATLAB(0-0-3)

10. Introduction to statistical problem by mat lab.
11. Finding Correlation ,Regression by the use of mat lab.
12. T- test , Chi square test by using mat lab.
13. Testing of hypothesis, confidence interval by using mat lab.
14. Statistical validation of various types of data by using mat lab.
15. Design and modeling of Binomial and Poisson distribution by mat lab.
16. Generation of random numbers , by any simulator.
17. Simple integration by random numbers ,mat lab implementation.
18. Finding 1^{st},2^{nd} moments by using mat lab.
19. General statistical application in validation of medical related data.