

10B28CI682: Data Mining Lab

Course Credit: 1

Semester: VI

Objective:

1. Practical exposure on implementation of well known data mining tasks.
2. Exposure to real life data sets for analysis and prediction.
3. Learning performance evaluation of data mining algorithms in a supervised and an unsupervised setting.
4. Handling a small data mining project for a given practical domain.

Learning Outcomes:

1. The data mining process and important issues around data cleaning, pre-processing and integration.
2. The principle algorithms and techniques used in data mining, such as clustering, association mining, classification and prediction.

List of Experiments

S NO	Topics
1	Introduction to WEKA
2	Implementation of measures of proximity
3	Introduction to exploratory data analysis using R
4	Implementation of Apriori Algorithm for Association rule mining
5	Learning and implementing k-means clustering
6	Learning Naïve and Decision Tress classifier in WEKA
7	Learning Bayesian modeling and Inference in Netica
8	Implementation of outlier detection algorithms (nearest neighbor and Mahalanobis)
9	Data Mining Project

References

1. Introduction to Data Mining Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Pearson Education (Addison Wesley), 0-321-32136-7, 2006
2. Data Mining with WEKA. <http://www.cs.waikato.ac.nz/ml/weka/>

Evaluation Scheme:

1. Mid Term Exam (Viva and Written Exam)	20
2. End term Exam (Viva and Written Exam)	30
3. Lab Records	5
4. Regular Assessment (Quality and quantity of experiment performed, Learning laboratory skills, Attendance etc.)	30
5. Project	15

Total**100**