

### CS447 DATA WAREHOUSING AND DATA MINING LAB

#### Course Description & Objectives:

The main objective of this lab is to impart the knowledge on how to implement classical models and algorithms in data warehousing and data mining and to characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering. At the end to compare and contrast different conceptions of data mining.

#### Course Outcomes:

Students can able

- To evaluate the different models of OLAP and data preprocessing.
- To enlist various algorithms used in information analysis of Data Mining Techniques.
- To demonstrate the knowledge retrieved through solving problems

#### List of Experiments

1. Explore various commands given in PL/SQL in Oracle 8.0
2. Execute multi-dimensional data model using SQL queries.
3. Implement various OLAP operations such as slice, dice, roll up, drill up, pivot etc.
4. Implementation of Text Mining on the data warehouse
5. Explore the correlation-ship analysis between the data set
6. Evaluate attribute relevance analysis on a weather data warehouse
7. Evaluate Information Gain of an attribute in the student database
8. Experiment to predict the class using the Bayesian classification
9. Find out a weight & bias updating using the Back Propagation Neural Network
10. To perform various data mining algorithms on the give data base using WEKA

#### Text Book:

Jiawei Han, Micheline Kamber " Data Mining: Concepts and Techniques" 3<sup>rd</sup> edition ,Morgan Kaufmann, 2012

#### References:

1. Ramesh Sharda, Dursun Delen, David King Business Intelligence, 2/E; Efrain Publisher Turban,pearson Education, 2011
2. Berry, Gordon S. Linoff, "Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management", John Wiley & Sons Inc publishers, 3<sup>rd</sup> Edition, 2011.