ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

(IT532PE) DATA MINING LAB

(Professional Elective–I)

III Year B.Tech. IT - I Sem

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Prerequisites:

- A courseon"Database Management System

Course Objectives:

- The course is intended to obtain hands-on experience using data mining software.
- Intended to provide practical exposure of the concepts in data mining algorithms

LIST OF EXPERIMENTS

Experiments using Weka /Pentaho/Python

1. Data Processing Techniques:
    a. Data cleaning(ii)Data transformation–Normalization(iii)Data integration
2. Partitioning-Horizontal,Vertical, RoundRobin, Hash based
3. Data Warehouse schemas–star, snowflake, fact constellation
4. Data cube construction–OLAP operations
5. Data Extraction, Transformations & Loading operations
6. Implementation of Attribute oriented induction algorithm
7. Implementation of a priori algorithm
8. Implementation of FP–Growth algorithm
9. Implementation of Decision Tree Induction
10. Calculating Information gain measures
11. Classification of data using Bayesian approach
12. Classification of data using K–nearest neighbour approach
13. Implementation of K–means algorithm
14. Implementation of BIRCH algorithm
15. Implementation of PAM algorithm
16. Implementation of DBSCAN algorithm

Course Outcomes:

Upon the successful completion of this course, the student will be able to:

1. Apply preprocess sing statistical methods for any given raw data.
2. Gain practical experience of constructing a data ware house.
3. Implement various algorithms for data mining in order to discover interesting patterns from large amounts of data.
4. Apply OLAP operations on data cube construction
5. To analyze the process of pre processing the data

Text Books:

1. Data Mining–Concepts and Techniques-JIAWEIHAN & MICHELINEKAMBER,Elsevier.
2. Data Warehousing, Data Mining &OLAP-Alex Berson and Stephen J.Smith- Tata McGraw-Hill Edition, Tenth reprint2007

Reference Books:

1. Pang-NingTan,Michael Stein bach,Vipin Kumar, Anuj Karpatne, Introduction to DataMining, Pearson Education

CO-PO-PSO Mapping:

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	H	H	M	H	H	M	L						H	H
CO-2	H	H	H	H	H	M	H						H	H
CO-3	H	H	M	H	H	M	M						H	H
CO-4	H	H	M	H	H	M	M						H	H
CO-5	H	H	M	H	H	M	L						H	H

H-HIGH **M**-MODERATE **L**-LOW