

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Information Technology Engineering

Lesson plan of faculty member for the academic year 2017–18

Class: III B Tech

Branch-Section: IT-B

Semester: II

Subject: Data Warehousing and Data Mining

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT – I: Data Warehouse		
1	Introduction to Data warehouse, difference between operational database system and data warehouses	18 December 2017
2	Data warehouse Characteristics, Data warehouse Architecture and its Characteristics	20 December 2017
3	Extraction-Transformation-Loading, Logical (Multi-Dimensional)	22 December 2017
4	Data Modeling, Schema Design, Star, and Snow-Flake Schema	23 December 2017
5	Tutorial (G3,G2,G1) - Applications of data warehouse	18,21,23 December 2017
6	Fact Consultation, Fact Table, Fully Addictive, Semi-Addictive	27 December 2017
7	Non Addictive Measures, Fact -Less -Facts	29 December 2017
8	Dimension table Characteristics, OLAP Cube	30 December 2017
9	Tutorial (G2,G1) - Applications Of Data Mining, Examples of Data Mining	28,30 December 2017
10	OLAP operations	3 January 2018
11	OLAP server Architecture	5 January 2018
12	ROLAP, MOLAP	6 January 2018
13	Tutorial- (G2,G1) - Data warehouse Architectures	4,6 January 2018
14	HOLAP	8 January 2018
UNIT-II: Introduction to Data Mining		
15	Introduction to Data Mining	10 January 2018
16	What is Data Mining-Definition	12 January 2018
17	KDD, Challenges	13 January 2018
18	Tutorial- (G3,G2,G1) - Differences between ROLAP, MOLAP,HOLAP	8,11,13 January 2018
19	Data Mining Tasks	17 January 2018
20	Data Preprocessing	19 January 2018
21	Data Cleaning, Missing Data	20 January 2018
22	Tutorial- (G2,G1) - KDD Challenges	18,20 January 2018
23	Dimensionality Reduction	22 January 2018
24	Feature Subset Selection	24 January 2018
25	Discretization	27 January 2018
26	Tutorial- (G3,G2,G1) - Revision of Data Mining Processes	22,25,27 January 2018
27	Binaryzation	29 January 2018
28	Data Transformation	31 January 2018
29	Measures Of similarity and Dissimilarity-Basics	2 February 2018
30	Overview of UNIT –II, Problem Definition	3 February2018
UNIT-III: Association Rules		
31	Tutorial- (G3,G2,G1) - Dimensionality Reduction	29 January,1,3 February 2018
32	Frequent Item Set Generalization	5 February 2018
33	The APRORIRI Principle	10 February2018
34	Tutorial- (G3,G1) - APRIORI Algorithm	5,10 February 2018
35	Support and Confidence Measures	12 February 2018
36	Association Rule Generation	14February 2018
37	APRIORI Algorithm	16 February 2018
38	The Partition Algorithm	17 February 2018
39	Tutorial-(G3,G2,G1)-FP - Growth Problem	12,15,17 February 2018

40	FP-Growth Algorithms	19 February 2018
41	FP-Growth Algorithms	21 February 2018
42	Compact Representation of Frequent Item Set	23 February 2018
43	Maximal Item Set	24 February 2018
44	Tutorial- (G3,G2,G1) - Frequent Item Set	19,22,24 February 2018
45	Closed Frequent Item Set	26 February 2018
UNIT-IV: Classification		
46	Problem Definition	28 February 2018
47	General Approaches to Solving a Classification Problem	2 March 2018
48	Evaluation of Classifiers	3 March 2018
49	Tutorial- (G3, G1) - Decision Tree	26 February,3 March 2018
50	Classification Techniques	5 March 2018
51	Decision Trees-Decision Tree Construction	7 March 2018
52	Methods of Expressing Attribute test conditions	9 March 2018
53	Measures for Selecting the Best Split	10 March 2018
54	Tutorial- (G3,G2,G1) - Decision Trees revision	5,8,10 March 2018
55	Algorithm for Decision Tree Induction	12 March 2018
56	Naive-Bayes Classifiers, Bayesian Belief networks	14 March 2018
57	K-Nearest neighbor Classification	16 March 2018
58	Algorithm and Characteristics, K-Nearest Neighbor Characteristics	17 March 2018
59	Tutorial- (G3,G2,G1) - Naive-Bayes Algorithm	12,15,17March 2018
UNIT-IV: Clustering		
60	Problem Definition, Clustering Overview	19 March 2018
61	Evaluation Of Clustering Algorithms	21 March 2018
62	K-Means Algorithm, K-Means Additional issues	23 March 2018
63	PAM Algorithm	24 March 2018
64	Tutorial- (G3,G2,G1) - Partitioning Clustering	19,22,24 March 2018
65	Hierarchal Clustering, Agglomerative Methods	28 March 2018
66	Basic Agglomerative Hierarchical Clustering, Specific Techniques	31 March 2018
67	Tutorial- (G2,G1) - Divisive methods	29,31 March 2018
68	Key issues Of Clustering, Strength and weakness	2 April 2018
69	Tutorial- (G3) - Outlier Analysis	2 April 2018

Text books:

1. Data Mining – Concepts and Techniques - Jiawei Han & Micheline Kamber, Morgan Kaufmann Publishers, Elsevier,2nd Edition, 2006.
2. Introduction to Data Mining – Pang-Ning Tan, Michael Steinbach and Vipin Kumar, Pearson education.

Name and signature of the faculty: Mrs. V.Veda Sahithi

Name and signature of Head of the Department: Mr. M.Vinod