

# Bhoj Reddy Engineering College for Women: Hyderabad

## Department of Information Technology

Lesson plan of faculty member for the academic year 2020–21

Class: IV B Tech

Branch-Section: IT-A

Semester: I

Subject: Data Mining

Lectures per week: 4

Lecture Number	Topics to be covered	Date (s)
<b>UNIT – I: Introduction to Data Mining</b>		
1	Introduction, Data Mining, Definition	1 September 2020
2	KDD, Challenges	2 September 2020
3	Data Mining Tasks	4 September 2020
4	Data Preprocessing, Data Cleaning	7 September 2020
5	Missing data	8 September 2020
6	Dimensionality Reduction	9 September 2020
7	Feature Subset Selection	11 September 2020
8	Discretization and Binaryzation	14 September 2020
9	Data Transformation	15 September 2020
10	Measures of Similarity and Dissimilarity- Basics	16 September 2020
11	Revision	18 September 2020
<b>UNIT – II: Association Rules</b>		
12	Problem Definition, Frequent Item Set Generation	21 September 2020
13	The APRIORI Principle	22 September 2020
14	Support and Confidence Measures	23 September 2020
15	Association Rule Generation	25 September 2020
16	APRIORI Algorithm	28 September 2020
17	The Partition Algorithms	29 September 2020
18	FP-Growth Algorithms,	30 September 2020
19	Compact Representation of Frequent Item Set	5 October 2020
20	Maximal Frequent Item Set	6 October 2020
21	Closed Frequent Item Set.	7 October 2020
22	Revision	9 October 2020
<b>UNIT – III: Classification</b>		
23	Problem Definition	12 October 2020
24	General Approaches to solving a classification problem	13 October 2020
25	Evaluation of Classifiers	14 October 2020
26	Classification techniques	16 October 2020
27	Decision Trees	26 October 2020
28	Decision tree Construction	27 October 2020
29	Methods for Expressing attribute test conditions	28 October 2020
30	Measures for Selecting the Best Split	9 November 2020
31	Algorithm for Decision tree Induction	10 November 2020
32	Naive-Bayes Classifier	11 November 2020
33	Bayesian Belief Networks	13 November 2020
34	K-Nearest neighbor classification Algorithm, characteristics	16 November 2020
<b>UNIT – IV: Clustering</b>		
35	Problem Definition	17 November 2020
36	Clustering Overview	18 November 2020
37	Evaluation of Clustering Algorithms	20 November 2020
38	Partitioning Clustering-K-Means Algorithm	23 November 2020
39	K-Means Additional issues,	24 November 2020
40	PAM Algorithm	25 November 2020
41	Hierarchical Clustering-Agglomerative methods and divisive methods	27 November 2020
42	Basic Agglomerative Hierarchical Clustering Algorithm	1 December 2020

43	Key Issues in Hierarchical Clustering	2 December 2020
44	Strengths and Weakness	4 December 2020
45	Outlier Detection	7 December 2020
<b>UNIT – V: Web and Text Mining</b>		
46	Introduction	8 December 2020
47	Web mining	9 December 2020
48	Web content mining	11 December 2020
49	Web structure mining	14 December 2020
50	Web usage mining	15 December 2020
51	Text mining –unstructured text	16 December 2020
52	Episode rule discovery for texts	18 December 2020
53	Hierarchy of categories	21 December 2020
54	Text clustering	22 December 2020
55	Revision of unit 1	23 December 2020
56	Revision of unit 2	28 December 2020
57	Revision of unit 3	29 December 2020
58	Revision of unit 4	30 December 2020
59	Revision of unit 5	1 January 2021

**Text book:**

1. Data Mining- Concepts and Techniques- Jiawei Han, Micheline Kamber, Morgan Kaufmann Publishers, Elsevier, 2 Edition, 2006.
2. Introduction to Data Mining, Pang-Ning Tan, Vipin Kumar, Michael Steinbach, Pearson Education.
3. Data mining Techniques and Applications, Hongbo Du Cengage India Publishing

Name and signature of the faculty: Mrs Mehveen M K

Name and signature of Head of the Department: Mr C Murugamani