



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	T	P	L	T	P	Total	
TEITL604	Data Mining and Business Intelligence Lab	-	-	2	-	-	1	1	
		Examination Scheme							Total
		ISE			ESE		Total		
		40			Practical	Oral			
			-	20	60				

Pre-requisite Course Codes	IT44 (Database Management Systems) IT34 (Object oriented Programming) TEITC604 (data Mining and Business Intelligence)
After successful completion of the course, student will be able to:	
Course Outcomes	CO1 Demonstrate an understanding of the importance of data mining and the principles of business intelligence.
	CO2 Able to prepare the data needed for data mining algorithms in terms of attributes, class inputs, training, validating, and testing files.
	CO3 Implement classification on large data sets and apply metrics to measure the performance of algorithms.
	CO4 Apply Clustering on large data sets and measure the performance of algorithms.
	CO5 Apply Association mining on large data sets.
	CO6 Apply BI to solve practical problems : Analyze the problem domain, use the data collected in enterprise apply the appropriate data mining technique, interpret and visualize the results and provide decision support.

Exp. No.	Experiment Details	Ref.	Marks
1	a) Choose any business to understand the business model of the company. Objective of choosing this business is to find following:- i) Stakeholders ii) Revenue generation iii) Kind data generated iv) Business tools they use.	1,2	5
2	To demonstrate Data preprocessing using Weka Tool	1,2	5
3	To demonstrate Regression and draw Scatter Plot using R Tool.	1,2	5
4	To demonstrate classifier- Decision Tree, Naïve Bayes, Random Forest using Weka Tool and Java/Python.	1,2	5
5	To demonstrate Clustering Algorithms- K-Means using Weka Tool and Java/Python.	1,2,3	5
6	To demonstrate Association Mining Algorithm(Apriori, F-P Growth) in Weka and Java/Python.	1,2,3	5
7	Exploration of Business Intelligence tool	2,3,4	5
8	Group Work- Identify a) BI problem, Large Dataset, & Algorithm. b)	2,3,4	5



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

	Identify & visualize results. c) Describe what decision to be taken as a result of mining.		
Total Marks			40

References:

1. Han, Kamber, "*Data Mining Concepts and Techniques*", Morgan Kaufmann 3rd Edition
2. P. N. Tan, M. Steinbach, Vipin Kumar, "*Introduction to Data Mining*", Pearson Education
3. G. Shmueli, N.R. Patel, P.C. Bruce, "*Data Mining for Business Intelligence: Concepts, Techniques, and Applications in Microsoft Office Excel with XLMiner*", 1st Edition, Wiley India.
4. Carlo Verzellis, "*Business Intelligence: Data Mining and Optimization for Decision Making*", Wiley India Publications.