INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad – 500043

COMPUTER SCIENCE AND ENGINEERING

List of Laboratory Experiments

DATA WAREHOUSING AND DATA MINING LABORATORY							
Course Code	**Category**	**Hours / Week**			**Credits**	**Maximum Marks**	

		L	T	P	C	CIA	SEE	Total
ACSB15	**Core**	0	0	2	1	30	70	100

Contact Classes: Nil	**Tutorial Classes: Nil**	**Practical Classes: 36**	**Total Classes:36**
Branch: CSE	**Semester: V**	**Academic Year: 2021-22**	**Regulation: R18**

Course overview:
This course aims to learn mining tasks using a data mining toolkit (WEKA). It includes the pre-processing on data and data mining functionalities such as exploring data, association mining, classification, clustering and attribute selection.

Course objectives:
The students will try to learn:
1. The exploration of data with visualizations and needed preprocessing.
2. The demonstration of data mining tasks such as classification, clustering, association.
3. The analysis on data models with variant parameters.

Course outcomes:
After successful completion of the course, students will be able to:
CO1 Relate knowledge discovery in databases (KDD) process with the help of data warehouse fundamentals and data mining functionalities.
CO2 Select appropriate pre-processing techniques on real time data for usage of data mining algorithms.
CO3 Apply Apriori and FP growth methods on transaction data for frequent pattern mining.
CO4 Choose classification or clustering algorithm for building a classification or prediction model.
CO5 Infer complex data models with respect to multimedia, streams, spatial and web mining.
CO6 Examine data mining algorithms for solving real world problems.

WEEK NO	EXPERIMENT NAME	CO
WEEK – I	**PREPROCESSING**	**CO1**
	Simulate preprocessing methods dataset student and labor in weka	
WEEK – II	**ASSOCIATION RULE**	**CO3**
	1. Simulate association rule process on dataset contact lenses. arff using apriori algorithm in weka. 2. Simulate Association rule process on dataset test. arff using apriori algorithm in weka.	
WEEK – III	**CLASSIFICATION RULE BY J48**	**CO2**
	Simulate of classification rule process on dataset student. arff using j48 algorithm in weka.	
WEEK – IV	**CLASSIFICATION RULE BY J48**	**CO2**
	Demonstration of classification rule process on dataset employee. arff using j48 algorithm.	
WEEK – V	**CLASSIFICATION RULE BY ID3**	**CO3**
	Demonstration of classification rule process on dataset employee. arff using id3 algorithm.	
WEEK – VI	**CLASSIFICATION RULE BY NAÏVE BAYES**	**CO3**
	Demonstration of classification rule process on dataset employee. arff using naïve bayes.	
WEEK – VII	**CLASSIFICATION RULE BY K-MEANS**	**CO3**

	Demonstration of clustering rule process on dataset iris. arff using simple k-means.	
WEEK –VIII	**CLUSTERING**	**CO4**
	Demonstration of clustering rule process on dataset student. arff using simple k- means this macro to print the elements of the array.	
WEEK - IX	**CLUSTERING BY K-MEANS**	**CO5**
	Implement k-means algorithm.	
WEEK - X	**DECISION TREE**	**CO5**
	Implement decision tree classification algorithm.	
WEEK – XI	**ASSOCIATION RULE MINING BY APRIORI ALGORITHM.**	**CO5**
	Implement Apriori algorithm.	
WEEK – XII	**ASSOCIATION RULE MINING BY FP- GROWTH ALGORITHM.**	**CO6**
	Implement FP- growth algorithm.	