PRACTICAL RECORD

PAPER CODE : **ETCS -454 (ML)**

NAME : **Syeda Reeha Quasar**

ROLL NO. : **14114802719**

BRANCH : **CSE-I**

LAB GROUP : **8C7**

S. NO.	PROGRAMS	DATE OF EXP	DATE OF SUBMISSION	R1 (3)	R2 (3)	R3 (3)	R4 (3)	R5 (3)	TOTAL MARKS	SIGNATURE
1.	Introduction to Machine learning lab with tools (hands-on Weka).									
2.	Understanding of Machine learning algorithms List of Databases.									
3.	Implement K means Algorithm using WEKA Tool. Implementthe K-means algorithm and apply it to the data you selected.Evaluate performance by measuring the sum of Euclideandistance of each example from its class Center. Test the performance of the algorithm asa function of the parameter k.									
4.	Study of Databases and understanding attributes evaluation in regard to problemdescription.									

5.	Working of Major Classifiers, a)Naïve Bayes b) Decision Tree c)CART d) ARIMA (using (e)linear and logistics regression (f) Support vector machine (g) KNN (datasets can be: Breast Cancer data file or Reuters dataset).									
6.	Design a prediction model for Analysis of round trip Time ofFlight measurement from a supermarket using the randomforest, Naïve Bayes, etc.									
7.	Implement supervised learning (KNN classification) Estimatethe accuracy of using 5-fold cross-validation. Choose the appropriate options for missingvalues.									
8.	Introduction to R. Be aware of the basics of machine learning methods in R.									
9.	Build and develop a model in R for a particular classifier (random Forest).									
10.	Develop a machine learning method using Neural Networks in python to Predict stock									

	prices based on past price variation.									
Beyond the syllabus Experiments										
1.	Case Study of RMS Titanic Database to predict survival on the basis of the decision tree, Logistic Regression, KNN or k-Nearest Neighbors, Support Vector Machines									
2.	Understanding of Indian education in Rural villages to predict whether a girl child will be sent to school or not?									
3.	Understanding of dataset of contact patterns among students collected in the National University of Singapore.									

MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

VISION

To nurture young minds in a learning environment of high academic value and imbibe spiritual and ethical values with technological and management competence.

MISSION

The Institute shall endeavor to incorporate the following basic missions in the teaching methodology:

Engineering Hardware – Software Symbiosis

Practical exercises in all Engineering and Management disciplines shall be carried out by Hardware equipment as well as the related software enabling deeper understanding of basic concepts and encouraging inquisitive nature.

Life – Long Learning

The Institute strives to match technological advancements and encourage students to keep updating their knowledge for enhancing their skills and inculcating their habit of continuous learning.

Liberalization and Globalization

The Institute endeavors to enhance technical and management skills of students so that they are intellectually capable and competent professionals with Industrial Aptitude to face the challenges of globalization.

Diversification

The Engineering, Technology and Management disciplines have diverse fields of studies with different attributes. The aim is to create a synergy of the above attributes by encouraging analytical thinking.

Digitization of Learning Processes

The Institute provides seamless opportunities for innovative learning in all Engineering and Management disciplines through digitization of learning processes using analysis, synthesis, simulation, graphics, tutorials and related tools to create a platform for multi-disciplinary approach.

Entrepreneurship

The Institute strives to develop potential Engineers and Managers by enhancing their skills and research capabilities so that they become successful entrepreneurs and responsible citizens.

MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

COMPUTER SCIENCE & ENGINEERING DEPARTMENT

VISION

"To be centre of excellence in education, research and technology transfer in the field of computer engineering and promote entrepreneurship and ethical values."

MISSION

"To foster an open, multidisciplinary and highly collaborative research environment to produce world-class engineers capable of providing innovative solutions to real life problems and fulfill societal needs."