STATISTICAL MACHINE LEARNING APPROACHES TO
LIVER DISEASE PREDICTION

LITERATURE SURVEY

S.NO	TITLE	AUTHOR & PUBLISHED YEAR	KEYWORDS	PROPOSED WORK
1.	A Comparative Study on Liver Disease Prediction Using Supervised Machine Learning Algorithms	A.K.M Sazzadur Rahman, F.M. Javed Mehedi Shamrat, Zarrin Tasnim, Joy Roy, Syed Akhter Hossain **INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH ISSUE 11, NOVEMBER 2019**	Machine Learning, Liver Disease, Classification, Supervised learning, Random Forest, Decision Tree, Support Vector Machine, K-Nearest Neighbors, Naïve Bayes.	This paper aims to evaluate the performance of different Machine Learning algorithms in order to reduce the high cost of chronic liver disease diagnosis by prediction. Six machine learning techniques have been applied including Logistic Regression, K Nearest Neighbors, Decision Tree, Support Vector Machine, Naïve Bayes, and Random Forest. The performance was evaluated on different measurement techniques such as accuracy, precision, recall, f-1 score, and specificity and the result shown the LR achieved the highest accuracy
2.	Prognosis of Liver Disease: Using Machine Learning Algorithms	Vyshali J Gogi - VTU Research Scholar Dr. Vijayalakshmi M.N Associate Professor **International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering – 2018 (ICRIEECE)**	Liver Function Test (LFT), Data Mining, Liver Disease, Data Pre-processing, Healthcare, Decision Tree, SVM, Logistic Regression, Linear Discriminant	This Paper evaluates the process of identifying patterns in huge datasets comprising methods such as machine learning, statistics, and database system can be considered datamining. Data mining classification techniques like Decision Tree, Linear Discriminant, SVM Fine Gaussian and Logistic Regression algorithms are applied. Laboratory parameters of the patients are used as the dataset. MATLAB2016 is used in this paper for implementing classification algorithm on the dataset.

3.	Liver Disease Prediction using SVM and Naïve Bayes Algorithms	Dr. S. Vijayarani , Mr.S.Dhayanand **4, April 2015 International Journal of Science, Engineering and Technology Research (IJSETR)**	Classification, Liver function test, Naïve bayes, SVM	The main objective of this paper is to predict liver diseases using classification algorithms. The algorithms used in this work are Naïve Bayes and support vector machine (SVM). These classifier algorithms are compared based on the performance factors i.e. classification accuracy and execution time. From the experimental results it is observed that the SVM is a better classifier for predict the liver diseases
4.	A Survey on machine learning techniques for the diagnosis of liver disease	Harshpreet Kaur, Golmei Shaheamlung, Mandeep Kaur - **2020 International Conference on Intelligent Engineering and Management (ICIEM)**	Liver diagnosis, Machine learning, Expert System	The motive of this paper is to give a survey and comparative analysis of the entire machine learning techniques for diagnosis and prediction of liver disease in the medical area, which has already been used for the prediction of liver disease by various authors and the analysis are based on Accuracy, Sensitivity, Precision, and Specificity. Different types of machine learning, Supervised, Unsupervised and Semi- Supervised, Reinforcement Learning for diagnosis of liver disease such as SVM, KNN, K-Mean clustering, neural network, Decision tree etc and give difference accuracy, precision, sensitivity.
5.	Comparative Analysis of Machine Learning Techniques for Indian Liver Disease Patients	Maria Alex Kuzhippallil, Carolyn Joseph, Kannan A -**2020 6th International Conference on Advanced Computing & Communication Systems (ICACCS)**	Data mining, liver disease, genetic algorithm, outlier elimination, feature selection, classification models.	This paper compares various classification models and visualization techniques used to predict liver disease with feature selection. Outlier detection is used to find out the extreme deviating values and they are eliminated using isolation forest. The performance is measured in terms of accuracy, precision, recall f-measure and time complexity. The results of various classifiers are obtained by using proposed feature selection algorithm. From the experiments and comparative analysis, it increases classification accuracy and also leads to reduction in classification time and hence the prediction of the disease more efficiently