

LITERATURE SURVEY

[1].TITLE: Heart disease prediction system based on hidden naïve bayes classifier

AUTHOR: M.A.Jabbar, Shirina Samreen

YEAR: 2017

DESCRIPTION: Coronary heart disease is a major cause of death worldwide. The diagnosis of heart disease is a tedious task. There is a need for an intelligent decision support system for disease prediction. Data mining techniques are often used to classify whether a patient is normal or having heart disease. Hidden Naïve Bayes is a data mining model that relaxes the traditional Naïve Bayes conditional independence assumption. Our proposed model claims that the Hidden Naïve Bayes (HNB) can be applied to heart disease classification (prediction). Our experimental results on heart disease data set show that the HNB records 100% in terms of accuracy and out performs Naïve bayes.

[2].TITLE: Analytical study of heart disease diagnosis using classification techniques

AUTHOR: C. Sowmiya , P. Sumitra

YEAR: 2018

DESCRIPTION: Heart disease is the number one problem for world. Heart disease more than people deaths occur during the first heart attack. But not only for heart attack have some problems attacked for breast cancer, lung cancer, ventricle. Valve, etc... It is essential to have a frame work that can effectually recognize the prevalence of heart disease in thousands of samples instaneously. In this paper the potential of nine (9) classification techniques was evaluated of prediction of heart disease. Namely decision tree, naive Bayesian neural network, SVM.ANN, KNN. My proposed algorithm of Apriori algorithm and SVM (support vector machine) in heart disease prediction. Using medical profiles such as a age, sex, blood pressure, chest pain type, fasting blood sugar. It can predict like of patients getting heart disease Based on this, medical society takes part interest in detecting and preventing the heart disease. From the analysis it have proved that classification based techniques contribute high effectiveness and obtain high accuracy compare than the previous methods.

[3].TITLE: Heart Disease Prediction using Feature Selection and Ensemble Learning Techniques

AUTHOR: A. Lakshmanarao , A. Srisaila , T.Srinivasa Ravi Kiran

YEAR: 2021

DESCRIPTION:Cardiovascular diseases (heart-related diseases) are the reason for the deaths of 18 million people every year in the world. According to WHO,31% of the deaths worldwide are due to heart-related diseases. In this paper, we proposed a novel machine learning model for heart disease prediction. The proposed method was tested on two different datasets from Kaggle and UCI. We applied sampling techniques to the unbalanced dataset and feature selection techniques are used to find the best features. Later several classifier models were applied and achieved good accuracy with ensemble classifier. The experimentations on two datasets shown that the proposed model is effective for heart disease prediction. Python was used for all implementations.

[4].TITLE: Decision Support System for Heart Disease Diagnosis Using Interval Vague Set and Fuzzy Association Rule Mining

AUTHOR: P. Umasankar , V. Thiagarasu

YEAR: 2019

DESCRIPTION:The most common death is due to the condition that affects the heart is Cardiovascular disease (CVD). The inadequate oxygen to the heart leads to the symptoms like fatigue and chest pain (angina). This paper proposes a framework which incorporates the pre-processing step, Interval Vague set, Fuzzy Association Rule mining and Fuzzy Correlation rule mining for the decision making process. In this paper, the proposed framework mainly focused on the criteria that are causing the heart attack among the people. The pre-processing step is used to reduce the size of the heart disease dataset. Using the Rule Mining algorithm, the set of rules are generated for the prediction of heart diseases based on the selected criteria. Interval vague set is used to solve the decision making problem among the doctors regarding the heart disease among the patient who are in the hesitant state.

[5].TITLE: Heart disease diagnosis using data mining technique

AUTHOR: Sarath Babu , E M Vivek , K P Famina , K Fida , P Aswathi , M Shanid , M Hena

YEAR: 2017

DESCRIPTION: Data mining is an advanced technology, which is the process of discovering actionable information from large set of data, which is used to analyze large volumes of data and extracts patterns that can be converted to useful knowledge. Medical data mining has a great potential for exploring the hidden patterns in the data sets of medical domain. These patterns can be utilized to do clinical diagnosis. These data need to be collected in a standardized form. From the medical profiles fourteen attributes are extracted such as age, sex, blood pressure and blood sugar etc. can predict the likelihood of patient getting heart disease. These attributes are fed in to K-means algorithms, MAFLA algorithm and Decision tree classification in heart disease prediction, applying the data mining technique to heart disease treatment; it can provide as reliable performance as that achieved in diagnosing heart disease. By this medical industries could offer better diagnosis and treatment of the patient to attain a good quality of services. The main advantages of this paper are: early detection of heart disease and its diagnosis correctly on time and providing treatment with affordable cost.

[6].TITLE: Real-time Heart Disease Prediction System using Multilayer Perceptron

AUTHOR: Sakshi Bhoyar , Nikki Wagholikar , Kshitij Bakshi , Sheetal Chaudhari

YEAR: 2021

DESCRIPTION: Stroke, Heart Failure, Arrhythmia, and myocardial infarction are the most common cardiovascular diseases which record high mortality rates around the world. Heart defects are not detected in the early stages due to the impractical costs of the tests available. Thus, a fast, real-time, and reliable system that predicts the chances of a patient having heart disease in an optimized manner is required. In this research, a Neural Networks model using a Multilayer Perceptron (MLP) is proposed for the prediction system. Experimental analysis resulted in an accuracy of 85.71% for UCI Heart Disease dataset and 87.30% for Cardiovascular Disease dataset. When compared to previous research the increase in accuracy was approximately 12-13%. A simple web application tool is also developed using python programming to test the prediction system. This research works towards making a comprehensible tool for medical professionals as well as common people.

[7].TITLE: Heart Disease Prediction using Evolutionary Rule Learning

AUTHOR: Aakash Chauhan , Aditya Jain , Purushottam Sharma , Vikas Deep .

YEAR: 2018

DESCRIPTION: In modern society, Heart disease is the noteworthy reason for short life. Large population of people depends on the healthcare system so that they can get accurate result in less time. Large amount of data is produced and collected by the healthcare organization on the daily basis. To get intriguing knowledge, data innovation permits to extract the data through automization of processes. Weighted Association Rule is a type of data mining technique used to eliminate the manual task which also helps in extracting the data directly from the electronic records. This will help in decreasing the cost of services and also helps in saving lives. In this paper, we will find the rule to predict patient's risk of having coronary disease. Test results have shown that vast majority of the rules helps in the best prediction of coronary illness.

[8].TITLE: Prediction of Heart disease using DNN

AUTHOR: Vineet Sharma , Akhtar Rasool , Gaurav Hajela

YEAR: 2020

DESCRIPTION: Machine learning classification techniques are extremely useful in the medical field by providing accurate results and quick diagnosis of diseases. Hence, these techniques save lot of time for both doctors and patients. The neural networks can be used as classifiers predict the diagnosis of Cardiovascular Heart disease. This research has explored neural networks, where it has analyzed many optimizing algorithms and weight initializing techniques in this research. The most common algorithms are used and observed their effect on the accuracy of the model. The coronary heart disease dataset is used in the thesis as data to work on. In order to compare results, further analysis has been done and results are compared with performance of other classifiers.