DEPT OF CSE

EARLY DETECTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING

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BATCH. NO :03

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OBJECTIVE

To detect the chronic kidney disease in the earlier stages using Machine Learning. It helps us to measure the severity of the problem using Machine Learning Techniques.

LITERATURE REVIEW

1. **A Deep Neural Network for Early Detection and Prediction of Chronic Kidney Disease.**

ABSTRACT:

Chronic kidney disease mainly occurs due to high blood pressure and diabetes. CKD can be easily identified by the researchers based upon two parameters – Glomerular Filtration Rate (GFR) and kidney damage markers. In a Deep Neural Network Techniques, the averages of the associated features need to be replacing all missing values in the database. Recursive Feature Elimination (RFE) is used to identify the important features for prediction. This technique mainly uses four classifiers and used to estimate the comparative analysis.

LITERATURE REVIEW Contd…

2. Predicting the Risk of Chronic Kidney Disease (CKD) Using Machine Learning Algorithm .

ABSTRACT:

Creatinine, which is a type of metabolite of blood that is strongly correlated to Glomerular Filtration Rate (GFR). Calculating GFR value is difficult, so creatinine value is directly taken instead of calculating GFR. The medical community accepts a GFR of 60 ml/min is used as the threshold, below which is considered to have CKD. The first step is a regression model which predicts the value of creatinine from 23 attributes, and then combine the predicted value of creatinine with the original 23 attributes to detect the risk of CKD. To improve the results of creatinine predictor, the average results from overall predictors and ensemble the results.

LITERATURE REVIEW Contd…

3. Diagnosis of Chronic Kidney Disease Using Effective Classification Algorithms and Recursive Feature elimination techniques.

ABSTRACT:

Chronic Kidney Disease is a disorder that affects normal kidney function and exploring preventive measures for CKD through early diagnosis using machine learning technique. The mean and mode statistical analysis methods were used to replace the missing numerical values and the nominal values, this involves in the process of data pre-processing techniques. The most important attributes can be found by applying Recursive Feature Elimination (RFE) technique.CKD is a serious life-threatening disease, with high rates of morbidity and mortality and this can be very helpful in the early detection of CKD.

LITERATURE REVIEW Contd…

4. Identification and Prediction of Chronic Diseases Using Machine Learning Approach

ABSTRACT:

Chronic kidney disease is one of most widespread diseases among humans. It is identified and predicted at the earliest stages, so as to prevent extremity of it. Identification of chronic kidney disease with human is achieved by cutting-edge machine learning techniques. A collection of disease symptoms along with the person's living habits, and doctor consultations are taken for preparing the dataset. It is highly believed proposed system can reduce the risk of chronic diseases by diagnosing them earlier and also reduces the cost for diagnosis, treatment, and doctor consultation.

LITERATURE REVIEW Contd…

5. Prediction of chronic kidney disease using different classification algorithms

ABSTRACT:

Chronic kidney disease (CKD) is a common kidney function problem that can because deterioration of kidney performance and leads to kidney failure. Different classifiers are applied to classification of a CKD dataset. A sensitivity analysis of selected classifiers will be implemented to evaluate the performance of these classifiers with changes in their parameters. It provided to identify certain CKD cases at early stages using the presented selected features.

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Thank You!!