

# **LITERATURE SURVEY FOR EARLY DETECTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING**

## **INTRODUCTION:**

Chronic kidney disease (CKD) is a significant public health problem worldwide, especially for low and medium-income countries. Chronic kidney disease (CKD) means that the kidney does not work as expected and cannot correctly filter blood. About 10% of the population worldwide suffers from (CKD), and millions die each year because they cannot get affordable treatment, with the number increasing in the elderly

Chronic Kidney Disease (CKD) is a major medical problem and can be cured if treated in the early stages. Usually, people are not aware that medical tests we take for different purposes could contain valuable information concerning kidney diseases. Consequently, attributes of various medical tests are investigated to distinguish which attributes may contain helpful information about the disease. The information says that it helps us to measure the severity of the problem and we make use of such information to build a machine learning model that predicts Chronic Kidney Disease

## **EXISTING SOLUTION:**

1. Very few systems use the available clinical data for Classification purposes and even if they do they are restricted by the large number of association rules that apply.
2. Diagnosis of the condition solely depends upon the Doctor's intuition and patient's records.

## **DRAWBACKS:**

1. Detection is not possible at an earlier stage.
2. In the existing system, practical use of various collected data is time consuming.

## **PROPOSED SYSTEM:**

1. The proposed system acts as a decision support system and will prove to be an aid for the physicians with the diagnosis.
2. Each data point is associated with multiple clusters depending upon the membership degrees.

3. The training data is trained by using proposed machine learning algorithm classification clustering and logistic regression algorithm.

#### **ADVANTAGES:**

1. High performance and accuracy rate.
2. Classification is very flexible and is widely in various domains with high rates of success.

#### **TECH STACK:**

- FRONT END – HTML,CSS
- BACKEND – FLASK-PYTHON
- DETECTING ALGORITHM – LOGISTIC REGRESSION

#### **LOGISTIC REGRESSION:**

1. Logistic regression, also called logit model or logistic model, is a widely used model to analyze the relationship between multiple independent variables and one categorical dependent..
2. Logistic regression is a predictive modelling algorithm that is used when the Y variable is binary categorical. That is, it can take only two values like 1 or 0. The goal is to determine a mathematical equation that can be used to predict the probability of the event

#### **REFERENCES:**

1. [https://www.researchgate.net/publication/363163833\\_Chronic\\_Kidney\\_Disease\\_Prediction\\_Using\\_Machine\\_Learning\\_Techniques](https://www.researchgate.net/publication/363163833_Chronic_Kidney_Disease_Prediction_Using_Machine_Learning_Techniques)
2. <https://www.ijert.org/chronic-kidney-disease-prediction-using-machine-learning>

