

## **LITERATURE SURVEY**

**AUTHOR:**Baisakhi Chakraborty

**YEAR:**2019

This model is proposed for developing a CKD prediction system using machine learning techniques such as K nearest neighbors, logistics regression, decision tree, random forests, naïve Bayes, supports vector machines, and multilayer perception algorithms. These are applied and their performance compared to the precision, and recall results. Finally, a random forests is chosen to implement this system.

**AUTHOR:**S.Dilli Arasu and Dr.R.Thirumalaiselvi

**YEAR:**2017

S.Dilli Arasu and Dr.R.Thirumalaiselvi addressed missing values in the chronic kidney disease dataset. Missing values in the dataset reduce model accuracy and predictive results. They find a solution to this problem by preforming a recalculation process at the CKD level and getting unknown value in process. They replaced the missing values with newly calculated values.

**AUTHOR:**S.Ramya and Dr.N.Radha

**YEAR:**2016

The authors worked to improve diagnostic time and diagnostic accuracy using various machine learning classification algorithms. Th proposed work addresses the classification of different stages of CKD according to their severity. Analyze different algorithms such as Basic Propagation Neural Network, RBF, and RF. The analysis results show that the RBF algorithm outperforms other classifiers, achieving 85.3% accuracy.

**Author:**A.Salekin and J.Stankovic

**Year:**2016

The authors evaluated three classifiers to detect CKD: Random Forest, K Nearest Neighbors , and Neural Networks. They used a dataset of 400 patients from the UCI with 24 attributes. Trait reduction analysis was performed to find attributes that recognize this disease with high accuracy using the wrapper method. By factoring in albumin, specific gravity, diabetes mellitus, hemoglobin, and hypertension, CPR can be predicted with 0.98 F1 and 0.11 RMSE.

**Author:**P.Yildirim

Year:2017

The author studied the effect of sampling algorithms in predicting chronic kidney disease. Experiments were performed by comparing the effects of his three samplings algorithms, Resample, SMOTE and Spread Sup Sample, on predictions by the multi=layer perceptron classification algorithm. This study showed thatampling algorithms can improve the performance of classification algorithms, and that resampling methods have higher accuracy among sampling algorithms. Spread Sub Sample, on the other hand, performed better in terms of execution time.