**LITERATURE SURVEY**

For Chronic Kidney Disease classification, lot of studies have been done and many works applied different techniques like Random Forest Classifier, KNN, Logistic Regression, Decision Tree Classifier etc.

Gunarathne W.H.S.D et.al.[3] Has compared results of different models. And finally they concluded that the Multiclass Decision forest algorithm gives more accuracy than other algorithms for the reduced dataset of 14 attributes.

S.Ramya and Dr.N.Radha[4] worked on diagnosis time and improvement of diagnosis accuracy using different classification algorithms of machine learning. The proposed work deals with classification of different stages of CKD according to its gravity.

By analyzing different algorithms like Basic Propagation Neural Network, RBF and RF. The analysis results indicates that RBF algorithm gives better results than the other classifiers and produces 85.3% accuracy.

S.Dilli Arasu and Dr. R. Thirumalaiselvi [5] has worked on missing values in a dataset of chronic Kidney Disease. Missing values in dataset will reduce the accuracy of our model as well as prediction results. They find solution over this problem that they performed a recalculation process on CKD stages and by doing so they got up with unknown values. They replaced missing values with recalculated values.

Asif salekin and john stankovic they use novel approach to detect CKD using machine learning algorithm. They get result on dataset which having 400 records and 25 attributes which gives result of patient having CKD or not CKD. They use k-nearest neighbors, random forest and neural network to get results. For feature reduction they use wrapper method which detect CKD with high accuracy.

J. Snegha [10] proposed a system that uses various data mining techniques like Random Forest algorithm and Back propagation neural Network. Here they compare both of the algorithm and found that Back Propagation algorithm gives the best result as it uses the supervised learning network called feedforward neural network.

Mohammed Elhoseny, 2019 described a system for CKD in which it uses Density based feature selection with ACO. The system uses wrapper methods for feature selection.

Baisakhi Chakraborty [9] proposed development of CKD prediction system using machine learning techniques such as K-Nearest Neighbor, Logistic Regression, Decision Tree, Random Forest, Naïve Bayes, Support Vector Machine and Multi-Layer Perceptron Algorithm. These are applied and their performance are compared to the accuracy, precision, and recall results. Finally, Random forest is chosen to implement this system.