A Survey on Chronic Kidney Disease Detection

Abstract—Chronic kidney disease (CKD) also called as chronic renal failure (CRF), is a medical term that refers to decreased renal function due to damaged–a risk through low, moderate, and severe chronic kidney failure. In the United States, the number of incidences

related to kidney failure is increasing. Medical field has heterogeneous data like, figures, text and images in order to provide useful medical information. The information obtained from these medical records helps the doctors to predict or detect the pattern of the disease. This information in turn can be used to help in the survival of the predicted patients. The severity of the disease can also be predicted using this medical information. The paper aims to analyze and understand some of the techniques that are used in predicting kidney disease. Chronic Kidney Disease (CKD)

classification is performed using classification

techniques like Artificial Neural Network(ANN), Naïve Bayes, SVM, MBPN , ada boost classifier, LDA, KNN, etc.

Kidney disease has become a kind of a

common disease with serious problems. Slow kidney damage occurs usually in case of diabetes, high blood pressure, etc. This is termed as chronic kidney disease. When a person is sick it can so happen that the kidney gets injured with sudden changes in the cause, or by consuming certain medications, and this is called as acute kidney injury. This usually takes

place with a person having normal kidneys or to a person who has kidney problems. The main factors identified as cause for the disease are: High blood pressure, Diabetes, Cardiovascular (heart and blood vessel) disease, hereditary records on kidney failure. Chronic kidney disease (CKD) is a medical condition

where the kidneys are damaged and blood cannot be filtered. In the end-stage of the disease the rena renal disease (CKD), renal function is severely damaged. Slow kidney damage occurs usually in case of diabetes, high blood pressure, etc. This is termed as chronic kidney disease. When a person is sick it can so happen that the kidney gets injured with sudden changes in the cause, or by consuming certain medications, and this is called as acute kidney injury. This usually takes place with a person having normal kidneys or to a person who has kidney problems.

Around 10% of the population in the world suffers chronic kidney disease (CKD), leading to millions of deaths every year. Chronic kidney disease ranks number 27 in 1990 as world's leading cause of death. In the year 2010 it ranks in the 18th place. Some of the risk factors that can be defined are obesity, smoking, hypercholesterolemia, Obstructive renal disease, diabetes (type 1 and 2), obstruction of the bladder by BPH, cirrhosis, atherosclerosis and hepatic failure, narrowing of the arterial supply of the kidneys, bladder cancer, kidney cancer, kidney stones and kidney infections.

REFERENCES:

The Impact on the

1.Classification Performance of the Combined Use of Different Classification Methods and Different Ensemble Algorithms in Chronic Kidney Disease Detection”.

2. Lakshmi. K.R, Nagesh. Y and VeeraKrishna. M, (2014)Performance Comparison Of Three Data Mining Techniques For Predicting Kidney Dialysis Survivability, International Journal of Advances in Engineering & Technology, Mar., Vol. 7, Issue 1, pg

no. 242-254.

3. K.R.Lakshmi1, Y.Nagesh2 and M.VeeraKrishna3,

“Performance Comparision of Three Data Mining Techniques for Predicting Kidney Dialysis Survivability”, International Journal of Advances in Engineering & Technology, Mar. 2014, Vol. 7, Issue

1, pp. 242-2