

Project Objectives

Date	09 November 2022
Team ID	PNT2022TMID38362
Project Name	Project – Early Detection of Chronic Kidney Disease using Machine Learning

Economic Value:

- The aim is **to treat and control the symptoms of kidney failure**.
- It includes medical, psychological and practical care for both the person with kidney failure and their family, including discussion about how you feel and planning to save the life.
- The rationale for testing asymptomatic people for CKD is that earlier detection might allow for the implementation of therapeutic interventions and avoidance of inappropriate exposure to nephrotoxic agents.

Project Objectives:

- The objective of the present project is to employ machine learning algorithms in an attempt to develop a prediction model for progression to detect the Chronic Kidney disease in earlier stage.
- By using the wrapper method, a feature reduction analysis has been performed to find the attributes that detect this disease with high accuracy.
- By considering the parameters like albumin, specific gravity, diabetes mellitus, hemoglobin, and hypertension as features, we can predict the CKD at earlier stage.
- As the result of our project, following program objectives can be outlined as the fundamentals for research and practical work in the field of Nephrology,
 - i. Deep research about the chronic kidney disease
 - ii. Conduct an enquiry about the causes of chronic kidney disease
 - iii. Study the research observations of reported ways of treating the CKD
 - iv. Select the most accurate machine learning method and carry out new research to trace the disease earlier
 - v. Create awareness among the ordinary people and to produce a user friendly model to assess their conditions at ease of their comfort.

- vi. State the limitations of the current program of CKD and to produce new ideas to make it better.
- vii. To implement solutions for the limitations stated.
- viii. Introduce research findings to the nephrology and medical researchers to update their treatment techniques and the overall process of finding CKD.
- ix. Outline the directions for future enhancement.