Project Objectives

Date	09 November 2022
Team ID	PNT2022TMID06255
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.