EARLY PREDICTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING

- Chronic kidney disease (CKD) means your kidneys are damaged and can't filter blood the way they should.
- The main risk factors for developing kidney disease are diabetes, high blood pressure, heart disease, and a family history of kidney failure**.**
- some types of kidney disease can be treated. Often, though, chronic kidney disease has no cure.
- Machine learning provides researchers with the ability to analyse data which was previously inaccessible.
- The ability of machine learning to read kidney biopsy samples, identify patient outcomes from unstructured data, identify subtypes in complex diseases, and discuss the potential benefits on drug discovery
- main goal will be to predict whether an individual will have chronic kidney disease or not based on the data provided.

PROBLEM STATEMENT:

- Machine learning methods can be leveraged to process and interpret the large amounts of data generated by the near universal adoption of electronic health records in healthcare systems.
    1. Machine learning has been used to predict kidney disease progression and classification of tissue on kidney biopsies.
    2. Implementation of machine learning into clinical practice must ensure protection of patient privacy, enhancement of physician workflow.
    3. This research work aims to design and implement a machine learning model that, based on data from clinical laboratories, allows predicting the possible diagnosis of

CKD in its initial stages, helping reduce the mortality rate and costs for the health system.

PAINS AND GAINS

GAINS	PAINS
It is automatic	Chances of error or fault are more
It is used in various fields	Data requirement is more
It can handle varieties of data	Time-consuming and more resources required
Scope of advancement	Inaccuracy of interpretation of data
Can identify trends and pattern. Considered best for Education, Medical field applications.	More space required