

**PROJECT DESIGN PHASE-I**  
**PROPOSED SOLUTION**

Date	22 September 2022
Team ID	PNT2022TMID16016
Project Name	Early Detection of Chronic Kidney Disease Using Machine Learning
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Early Detection of Chronic Kidney Disease using Machine Learning.
2.	Idea / Solution description	Chronic Kidney Disease (CKD) early detection and treatment are highly preferred because they can help to avoid negative outcomes. Using the dataset gathered from the medical records of those who have the condition, machine learning techniques are utilised to forecast the various stages of CKD.
3.	Novelty / Uniqueness	We have specifically used the Random Forest and J48 algorithms to build a practical and sustainable model to accurately identify the various phases of CKD.
4.	Social Impact / Customer Satisfaction	Because chronic kidney disease (CKD) is a silent illness and most patients don't experience symptoms until kidney function is compromised, By assisting physicians in early CKD diagnosis and improving the lives of thousands of patients, our study has the potential to significantly alter the landscape of medicine.
5.	Business Model (Revenue Model)	Patients are advised to use this application, which is available for a nominal membership fee.
6.	Scalability of the Solution	In order to better analyse nanomaterials and nanoscale biological materials, machine learning techniques can be used. This will help with the search for new materials and the most effective ways to develop nanomaterials..