

**Project Design Phase-I**  
**Proposed Solution**

Date	24 September 2022
Team ID	PNT2022TMID51603
Team Leader	Gitson Tharmaraj I
Team Members	Ajay K, Kapin R, Subin Vijaya Balan M, Naveen Kumar G
Project Name	Efficient of water quality analysis and prediction using machine learning
Maximum Marks	2 Marks

**Proposed Solution:**

S. No	Parameter	Description
1	Problem Statement (Problem to be solve it))	World is being surrounded by 3/4th of the water surface and it is essential for all humans and living organisms. Quality of water is unstable, water can be polluted at any time and water quality testing is so expensive and a huge wastage of water. With this initiative, we start a machine learning algorithm to estimate the quality of water.
2	Idea / solution description	Our model predicts that the water is safe to drink or using some parameters like Ph value, conductivity, hardness, etc. Access to safe drinking water is essential to health, a basic human right and a component of effective policy for health protection.
3	Novelty / Uniqueness	Warning when to change the flitter Detecting salt value.
4	Social Impact / Customer Satisfaction	Customer satisfaction is an important goal in total quality management. In order to meet this goal, it is necessary to use an evaluation model for measuring the customer satisfaction level in a water supply domain. Some important criteria such as water quality, responsibility of the company, etc,. Distinguished and used in the proposed model. To integrate all of these criteria in a unit index, the analytic hierarchy process technique is used.

5	Business Model (Revenue Model)	Water is one of the essential components for human living. Water quality as a direct impact of public health and the environment. Water quality models have different information but generally have the same purpose, which is to provide evidentiary support of water issues and understand the material need. Apply for carbon Finance.
6	Scalability of the Solution	The most common treatment for reducing scale formation is to “Soften” the water. “Softening” is a process where calcium and magnesium in the water are exchanged with sodium. Commercial softeners are available either through a plumbing equipment supplier or a water treatment professional.