

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

Date	16/10/2022
Team ID	Harshitha S, Gowtham TG, Akram , Dhayanand
Project Name	<b>Statistical Machine Learning Approaches To Liver Disease Prediction</b>
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Liver diseases avert the normal function of the liver. Mainly due to the large amount of alcohol consumption liver disease arises. Discovering the existence of liver disease at an early stage is a complex task for the doctors
2.	Idea / Solution description	The main objective of this project is to analyze the parameters of various classification algorithms and compare their predictive accuracies so as to find out the best classifier for determining the liver disease.
3.	Novelty / Uniqueness	Here we use the synthetic minority oversampling technique (SMOTE) to oversample minority class to regulate overfitting, obtain confusion matrices for comparing actual classes with predictive classes, compare several ML approaches to assess a better performance of liver disease diagnosis
4.	Social Impact / Customer Satisfaction	This project is to analyze the parameters of various classification algorithms and compare their predictive accuracies so as to find out the best classifier for determining the liver disease. More accurate and prior prediction of disease is possible.
5.	Business Model (Revenue Model)	On-DEMAND BUSINESS MODEL, as it is very much convenient and easy for customers to use whenever needed.
6.	Scalability of the Solution	This solution is highly flexible, scalable, light weight and easy to negotiate as it is flask based web application.