Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID40374
Project Name	Detecting Parkinson's 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)	• Parkinson's disease is a progressive disorder of the central nervous system affecting movements and inducing tremors and stiffness • More than 10 million people are living with Parkinson's Disease worldwide , according to the Parkinson's Foundation. While Parkinson's cannot be cured, early detection along with proper medication can significantly improve symptoms and quality of life. • If laterly predicted , it results in cause several threatens to attected persons
2.	Idea / Solution description	• For perfect estimation, we collect some data from the user and analyse by using Machine learning to give more accurate result. • Using better Machine Learning Algoritm will result in perfect estimation.
3.	Novelty / Uniqueness	• Due to tremors and rigidity in muscles ,making it difficult to draw smooth spirals and waves. • Our goal is to quantify the visual appearance of these drawings and then train a machine learning model to classify them • In this project, we are using, Histogram of Oriented Gradients (HOG) image descriptor along with a Random Forest classifier to automatically detect Parkinson's disease in hand drawm images. • For perfect estimation, we collect some data from the user and analyse by using

		•	Machine learning to give more accurate result.
4.	Social Impact / Customer Satisfaction	•	The main aim of this application is early prediction and proper treatments can possibly stop or slow progression of this disease to end stage.
		•	Hence Customer will not suffer from serious effects of Parkinson's disease
5.	Business Model (Revenue Model)	•	Can generate revenue through direct customer.
		•	Can collaborate with health care sector and generate revenue from their customers.
		•	Can make an advertisement of hospitals that have special treatment of Parkinson's Disease, and if patients allow ,we share the details of the patients to that hospital for medication.
6.	Scalability of the Solution	•	In order to get user friendly and more accuracy , we additionally add some data collection from user and analyse easily by draw smooth spirals and waves.
		•	An Application is developed where data about patients are recorded and Suggest some medication if they have Parkinson's Disease.
		•	Due to improvement in accuracy of detection, user will trust the application and very helpful for Doctors to treat the patients at earlier stage.
		•	To help in early detection of Parkinson's disease which would help in early diagnosis thus slowing down disease progression.