

PROJECT PHASE 1

PROPOSED SOLUTION TEMPLATE

DATE	28 OCTOBER 2022
TEAM ID	PNT2022TMID09983
PROJECT NAME	Detecting Parkinson's Disease using Machine Learning
MAXIMUM MARKS	4 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 cannot be cured; early detection along with proper medication may decrease the symptoms and will improve quality of life. We focus on predicting the disease using Random Forest classifier to automatically detect Parkinson's disease in hand-drawn images of spirals and waves.
2	Idea / Solution description	In this project, we are using the HOG (Histogram of Oriented Gradients) which uses the image detector and processor along with the Random Forest Classifier which can automatically detect the presence of Parkinson's Disease in the hand drawn image of the waves and spirals.
3	Novelty / Uniqueness	The histogram of oriented gradients (HOG) is a feature descriptor used in computer vision and image processing for the purpose of object detection. The technique counts occurrences of gradient orientation in localized portions of an image. Random forest in combination with this can help in the better tree building. We combining the both will help in developing the model.
4	Social Impact/ Customer Satisfaction	In the Scientific perspective, the "Early" is easy to comprehend within the Framework of Disease pathology and its manifestation, making an Economic Burden on the Health Care System, Society and the patients themselves so the Early Detection can Reduce that cost burden
5	Business Model (Revenue Model)	This project model focuses and concentrates on reaching the patients those who are suffering from Parkinson's and taking treatment from doctors.
6	Scalability of the Solution	The nature of RF is such that convergence and numerical precision issues, which can sometimes trip up the algorithms used in logistic and linear regression, as well as neural networks, aren't so important. Because of this, you don't need to transform variables to a common scale like you might with a NN.