Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID15817
Project Name	Detecting Parkinson's Disease Using Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Parkinson's disease disorder is a brain disorder that causes unintended or uncontrollable movements, such as shaking, stiffness, and difficulty with balance and coordination. Symptoms usually begin gradually and worsen over time. As the disease progresses, people may have difficulty walking and talking.
2.	Idea / Solution description	Studies investigates signals from sustained phonation and text dependent speech modalities for Parkinson's disease screening. Phonation corresponds to the vowel voicing task and speech to the pronunciation of a short sentence, signal will be recorded through channel simultaneously through mobile phone or microphone. Parkinson disease affect vocal cord so the motion of speech is detected and evaluated.
3.	Novelty / Uniqueness	Testing 25 non impulsive patients with Parkinson's disease (PD) and 27 PD patients with impulsive compulsive behaviors (ICBs). Both patient groups were examined "on" and "off" dopaminergic medication in a counterbalanced order and their behavior was compared with 24 healthy controls. We found that PD patients with ICBs were significantly more prone to choose novel options than either non impulsive PD patients or controls, regardless of medication status. Our findings suggest that attraction to novelty is a personality trait in all PD patients with ICBs which is independent of medication status.
4.	Social Impact / Customer Satisfaction	Since it is based on the voice based detection it is very convenient to use. As it helps the people to detect the Parkinson's disease in early stage, the loss of life is prevented. It detects without cost and helps to avoid travelling and time.
5.	Business Model (Revenue Model)	A free platform with useful feature. Any adult and young people can use it and suggest it to others to increase the value
6.	Scalability of the Solution	Additional features can be added anytime anywhere. Any number of users can access it all at once.