**Bhoj Reddy Engineering College for Women (BRECW)**

GNI - National Hackathon 2023

Draft Idea Submission

Team Name: **Tragic Bytes**

Theme:  **Healthcare Protection**

Team Members:

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Title of the Project:

Prediction of Parkinson’s Disease Using Machine Learning

# Problem Statement:

# Millions of individuals worldwide are affected by Parkinson's Disease (PD), a progressively deteriorating disorder in which symptoms appear gradually over time. The problem at hand is to develop a machine learning model that can effectively predict the likelihood of Parkinson's disease in individuals based on their demographic, clinical, and genetic features. By addressing these challenges and developing an accurate and reliable prediction model, healthcare professionals can leverage machine learning techniques to aid in early detection and timely intervention for Parkinson's disease, ultimately improving patient outcomes and quality of life.

Objective :

Our project hopes to enhance the already available treatment system of Parkinson's patients.By using machine learning and deep learning we will be able to provide much accurate and cost efficient information to clinicians to perform better clinical trials and provide better solutions for patient.

Proposed Solution:

The proposed method is designed to classify whether the patient has PD or not by using the Google Colab environment and Python language.

Key Features and Functionality:

1. Data collection
2. Data Preparation and Data Visualization
3. Training and Testing the data
4. Prediction Analysis

Expected Outcomes:

Our Machine learning therefore have the potential to provide clinicians with additional tools to screen, detect or diagnose PD. This models can provide the nuclear experts an assistance that can aid them in better and accurate decision making and clinical diagnosis.

Technical Approach:

Machine Learning using Python and libraries such as Pandas , Numpy , Seaborn

Matplotlib, sklearn

Resources Required:

(Data source :  [https://www.kaggle.com/datasets/thedevastator/unlocking-clues-to-parkinson-s-disease-progressi]( https:/www.kaggle.com/datasets/thedevastator/unlocking-clues-to-parkinson-s-disease-progressi))

Timeline: 1-2

conclusion:

The proposed using machine learning and deep learning approaches to Identify Parkinson's Disease . The proposed working model can help in reducing treatment costs by providing initial diagnostics on time. Realization of machine learning-assisted diagnosis of PD yields high potential for a more systematic clinical decision-making system, while adaptation of novel biomarkers may give rise to easier access to PD diagnosis at an earlier stage. Machine learning approaches therefore have the potential to provide clinicians with additional tools to screen, detect or diagnose PD.