**Detecting Parkinson’s Disease using Machine Learning**

**Problem Statement:**

**1.Who does the problem affect?**

Men are slightly more likely to get affected by Parkinson’s disease compared to women.

**2. What are the boundaries of the problem?**

People usually develop the disease around age 60 or older.

**3.What is the impact of the issue?**

Parkinson's disease is caused by a loss of nerve cells in part of the brain called the substantia nigra. This leads to a reduction in a chemical called dopamine in the Brain**.**

**4.What impact is the issue causing?**

Motor symptoms: slow movement, tremor, rigidity, walking and imbalance.Non-motor complications: cognitive impairment, mental health disorders, sleep disorders and pain and other sensory disturbances.

**5.When does it need to be fixed?**

It needs to be fixed at the earliest when the suspected symptoms like soft or low voice, tremors, lack of facial expression and so on occur.

**6.What would happen if we didn’t solve the problem?**

Does not directly cause people to die, but the condition can place great strain on the body and can make some people more vulnerable to serious and life-threatening Infections.

**7.Where is the issue is occurring?**

The most prominent signs and symptoms occur when nerve cells in the basal ganglia that control movement become impaired or die.

**8.Why is it important that we fix the problem?**

By early detection of disease makes the people to take proper diagnosis on time to improve the quality of life of patients.

**9.What methodology used to solve the issue?**

Supervised and Un-supervised machine learning, Data mining , Computer vision with OpenCV, Python web application interface – Flask , IBM Cloud.

**10.Why is it important that we fix the problem?**

It is very crucial to develop a application that detects the disease at good prediction rate so that it helps to get a clear line of disease symptoms during the times.