Parkinson Disease is a neurological degenerative disorder that affects the working of central nervous system and hence affects are seen physically on the body. The number of neurons in the human mind is maximum during the time of birth. Neurons don’t have the ability to grow as the older dies hence as we age, the neurons start dieing out and are irreplaceable . This is the main cause behind the Parkinson Disease. People around the age of 50 or older are generally observed to be the ones suffering from it. Neurons produce a chemical fluid Dopamine, that is solely responsible for the movement in the body and transmission of signals amongst the neurons. As the Dopamine levels starts dropping with age , our neurological condition starts slowing down , influenced by the various communication modes in the brain. These affects incur very slowly , hence are usually not visible until the patient’s condition has worsened. Some of it’s Symptoms are loss of balance , slow movements and unstable posture.

WHO’s records show that this disease has affected almost 10 millions people around the globe. Patients aren’t diagonised of it in early stage , resulting in untreatable permanent neurological disorder . In study , we aim to develop a deep learning model implementing CNN(Convulational Neural Networks) for the objective diagnosis of Parkinson Disease in it’s early stages . Recent introduction of Neural Networks has changed level of the scientific and industrial researches and it has been applied to medical images for segmentation, lesion-detection, and disease classification . It has drastically improved the detection of various neurological diseases like epilepsy, schizophrenia,Alzheimer’s etc. In our study we are planning to use decisive features like biomarkers from Cerebrospinal Fluid measurement (CSF) , dopamine transporter imaging, and FP-SPECT imaging to predict the Disease and the dataset featured in the study is taken from Parkinson's Progression Markers Initiative (PPMI) database.