**PROJECT OBJECTIVES**

**AIM OF THE PROJECT:**

  The main aim is to test the ability of motor function of the  
patient with Parkinson’s disease.

**SCOPE OF THE PROJECT:**

  The scope of this project is to show the high accuracy of  
detecting Parkinson’s disease in early stage.  
  
**DESIGN AND METHODOLOGIES:**

**MODULE 1:** • Data Collection  
**MODULE 2:**                    •Training and testing of data.  
**MODULE 3:**                    • Apply XG Boost algorithm.  
**MODULE 4**:  
                   •Cod completion.  
  
To outline the different goals and objectives of included studies, we have further categorized them based on the type of diagnosis and their general aim. From the perspective of diagnostics, these studies could be divided into (a) the diagnosis or detection of PD (which compares data collected from PD patients and healthy controls), (b) differential diagnosis (discrimination between patients with idiopathic PD and patients with atypical Parkinsonism), and (c) sub-typing (discrimination among sub-types of PD).  
  
Included studies were also Analyzed for their general aim: For studies with a focus on the development of novel technical approaches to be used in the diagnosis of Parkinson's disease, e.g., new machine learning and deep learning models and architectures, data acquisition devices, and feature extraction algorithms that haven't been previously presented and/or employed, we defined them as (a) “methodology” studies. Studies that validate and investigate (a) the application of previously published and validated machine learning and deep learning models, and/or (b) the feasibility of introducing data modalities that are not commonly used in the machine learning-based diagnosis of PD (e.g., CSF data), were defined as (b) “clinical application” studies.

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