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ABSTRACT

Parkinson’s disease(PD) is a chronic and progressive neurodegenerative disorder.It affects mobility,speech and posture.It occurs due to the death of neurons,resulting in a decrease in dopamine levels in the brain.

The “Parkinson’s disease detection using Machine Learning” project focus more on detecting Parkinson’s disease and diagnose it using the voice recordings of the patient. Changes in speech are among the early symptoms of Parkinson's..90% of patients display signs of vocal cord injuries as a symptom in stage 0.It is not only easy to measure,but also falls under the category of telemedicine.Patient need not travel pysically to a doctor instead;they can record audio using phones and perform a simple test at home.Common voice modulation symptoms are called dysphonia.Patients can be asked to hold a single vowel’s pitch for as long as possible,also known as sustained phonation .

The relevance of this project lies in its potential to provide a non-invasive, cost-effective, and accessible method for Parkinson's disease detection. Traditional methods often involve expensive imaging techniques, which may not be readily available in all healthcare settings. A machine learning-based approach using voice data can facilitate early diagnosis,and potentially slowing disease progression.In this project two algorithms are compared.They are Support Vector Machine and Random Forest Algorithm.

Submitted by:

Sandriya Soman

MAC23MCA-2049

Faculty Guide:

Prof.Biju Skaria

Asso.Professor & HOD

MCA Dept,MACE