

Detecting Parkinson's Disease Using Machine Learning

SUBMITTED BY

Y.PRAGNYA	113319205031
R.ABENESH	113319205001
S.S.KAMALESH	113319205019
T.KAVYA	113319205020

BACHELOR OF TECHNOLOGY IN INFORMATION
TECHNOLOGY

LITERATURE SURVEY:

TITLE	AUTHOR	ALGORITHM	ADVANTAGES	DISADVANTAGES
A SURVEY ON EARLY DETECTION OF PARKINSON DISEASE USING DEEP LEARNING TECHNIQUE	Sakshi Jadhav, Seema Thorat, Sakshi Fokane, Rahul Chakre	Deep Learning	The literature survey has been conducted on the Parkinson's disease. To avoid the drawbacks of the conventional methods, new age deep learning techniques are proposed in this review paper. The included studies showed that Deep Learning techniques have significant impact on early detection of Parkinson with high accuracy rate.	Most of the proposed methods are still in development and not tested in a clinical setting. In this paper, the work is mainly focusing on advancement of predictive models to achieve good accuracy in predicting valid disease outcomes using deep learning methods like prediction based on Artificial Neural Network (ANN).
A REVIEW ON PARKINSON'S DISEASE DIAGNOSIS USING MACHINE LEARNING TECHNIQUES	Anila M , Dr. G. Pradeepini	Machine Learning	It accepts large volumes of data as input to build the neural network. The data can be in the form of text, image, audio, etc. In general, the input layer contains features of the dataset, each node of input layer in the above architecture represents one feature.	The neural networks and then outcome of each neural network is assessed by using a rule-based system for the decision. During the training process, data that is not yet learned of each neural network is collected and applied in the training set of the later neural network.

BIG DATA IN PARKINSON'S DISEASE USING SMARTPHONES TO REMOTELY DETECT LONGITUDINAL DISEASE PHENOTYPES	John Prince, Siddharth Arora and Maarten de Vos	Big Data	Using the remotely collected mPower dataset, we investigated the short-term and LTB of people with PD and HCs in a motor test and a separate non-motor test. We found significant impairments in the motor activity on both a short and long term basis, whereas no such impairment existed in the non-motor test. In both tests, we identified a previously unseen small fraction of participants who show transient LTB, with this transient behaviour being more common in PD participants than in HCs.	When comparing the LTB of a small number of participants across the tapping and memory activities, we observe a non-diagonal relationship between their learning-phenotypes. A recurring limitation with remotely collected big datasets is the lack of longitudinal subject compliance
PREDICTION OF PARKINSON'S DISEASE USING DATA MINING	S R Sonu; Vivek Prakash; Ravi Ranjan; K. Saritha	Data Mining	Data mining methods to analyze the database of Parkinson's disease and see whether the voice measurement variables can be the diagnostic tool for the PD. The study applies many analysis techniques, those are factor analysis, logistic regression, decision tree and neural network, to examine the dataset of PD.	According to the results of the factor analysis and the logistic regression model, the Variation in Fundamental Frequency is insignificant. The variation in the amplitude and the nonlinear measures of the variation in fundamental frequency have the relationship which is with the odd probability between the healthy pack and the PD patients pack.

