

LITERATURE SURVEY

TITLE	AUTHORS AND YEAR	JOURNAL	TECHNIQUES /METRICS	PROBLEM DESCRIPTION
Detecting Parkinson's Disease by using the MRI	G.Solana-Lavelle (2021)	IJIRMF	Logistic RF Naive Bayes Bayesian Net KNN MLP	In this approach for PD on MRI with the four main stages: (1) Region detection, (2) Extracting the features, (3) Selection of features, (4) classify the class, and (5) assessment of performance. Advantage : high accuracy
Parkinson's Disease detection on MRI scanned images by using convolutional neural network	Sabyasachi Chakraborty et al (2020)	ELSEVIER	METRICS Accuracy Precision Specificity Recall F1-Score ROC-AUC	In this paper, Parkinson's disease is detected by using the convolutional neural network model with the t1 weighted MRI scans. 35 layers include input and output, using the CNN network. Advantage : minimal error rate



TITLE	AUTHORS AND YEAR	JOURNAL	TECHNIQUES /METRICS	PROBLEM DESCRIPTION
Detection of Parkinson's Disease in MRI using CNN	Pir Masoom Shah et al (2019)	JNeurosci	SVM GA-ELM RVM Decision tree Nave Bayes	In this paper, the automatic detection of PD is done by a convolution neural network and the classifications are for healthy conditions and Parkinson's affected person. In all experiments, the classification accuracy is 68%. Advantage: Under different angles
Detection of Parkinson's Disease using DL	Sumeet Shinde et al (2019)	ELSEVIER	SVM VBM	In this paper, 2D CNN gave an input called the axial slices of the NMS-MRI with a boxed region around the brainstem. Passing through the chain of the convolutional layer. Advantage: high accuracy



TITLE	AUTHORS AND YEAR	JOURNAL	TECHNIQUES /METRICS	PROBLEM DESCRIPTION
Parkinson's disease using the ANN for Classification	Nalini T S, et.al.,(2020)	Conference Proceedings	ANN	<p>This study is taken for the earlier detection of the disease using the processing of image techniques and ANN. The various regions of the image are separated as the features for developing the model.</p> <p>Advantage:more reliable accuracy.</p>
Parkinson disease using ML	Anna-maija penttinen,et.al. (2020)	JNeurosci	CNN licensed	<p>In this Paper, Parkinson disease have been diagnosis by machine learning algorithms. The main steps used here in this article is feature selection and classification processes. Here in this paper, the PD patient are detected by using speech.</p> <p>Advantage: striatal connection</p>



TITLE	AUTHORS AND YEAR	JOURNAL	TECHNIQUES /METRICS	PROBLEM DESCRIPTION
Prediction of the Parkinson Disease	Matthew P.Adams, et.al, (2021)	ELSEVIER	GA-ELM Decision Tree Naïve Bayes SVM	The variability in the various images are clustered together and the separate class is formed along with the motor function issues. The matrices are used to evaluate the model performance for the better prediction of the Parkinson's disease. Advantage: requiring segmentation
Syndromes of the Parkinson disease	Yun Jung Bae, et.al, (2021)	RSNA	Logistic RF Naïve Bayes Bayesian Net KNN MLP	In this approach, by using transfer of the he Nigro some and dopamine the early detection of the PD can be done. The tensor imaging system is used for the edge detection in the research of the PD in the earlier stage. Advantage: improve diagnostic performance.



TITLE	AUTHORS AND YEAR	JOURNAL	TECHNIQUES /METRICS	PROBLEM DESCRIPTION
Early detection of Parkinson's disease using ML	Soheil Esmailzadeh et al (2020)	IJARIIIE-ISSN(O)	K-means clustering, decision tree, Random forest classifier	By using machine learning technique , the problem can be so lived with error rate. Advantage : hand-crafted features
Early detection of Parkinson's disease using Machine Learning	Wu Wang(2020)	IEEE	SVM LSTM	In this approach, the proposed deep learning model and twelve machine learning and ensemble learning methods based on relatively small data including 183 healthy individuals and 401 early PD patients shows the superior detection performance of the designed model, which achieve the highest accuracy, 96.45% on average. Advantage : minimal error rate



REFERENCES

1. G. Solana-Lavalle and R. Rosas-Romero, "Classification of PPMI MRI scans with voxel-based morphometry and machine learning to assist in the diagnosis of Parkinson's disease," Computer Methods and Programs in Biomedicine.
2. S. Chakraborty, S. Aich, and H.-C. Kim, "Detection of Parkinson's Disease from 3T T1 Weighted MRI Scans Using 3D Convolutional Neural Network," Diagnostics.
3. P. M. Shah, A. Zeb, U. Shafi, S. F. A. Zaidi, and M. A. Shah, "Detection of Parkinson Disease in Brain MRI using Convolutional Neural Network.
4. Shinde, S., Prasad, S., Saboo, Y., Kaushick, R., Saini, J., Pal, P. K., & Ingalthalikar, M. (2019). Predictive markers for Parkinson's disease using deep neural nets on neuromelanin sensitive MRI.
5. Adams, M. P., Rahmim, A., & Tang, J. (2021). Improved motor outcome prediction in Parkinson's disease applying deep learning to Datascan SPECT images.
6. Bae YJ, Kim JM, Sohn CH, Choi JH, Choi BS, Song YS, Nam Y, Cho SJ, Jeon B, Kim JH. Imaging the Substantia Nigra in Parkinson Disease and Other Parkinsonian Syndromes.
7. Nalini T S, Anusha M U, Umarani K, 2020, Parkinson's Disease Detection using SPECT Images and Artificial Neural Network for Classification .
8. Karapinar Senturk Z. Early diagnosis of Parkinson's disease using machine learning algorithms. Med Hypotheses.

