IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 6, April 2023

Diagnosis of Alzheimer's Disease Using EEG

Prof. Vimmi Malhotra, Yogesh, Shivangi Mathur, Pallavi Singh
Department of Computer Science
Dronacharya College of Engineering, Gurugram.
yogeshgemini31@gmail.com, pallavi.singh9810@gmail.com , shivangi.mathur.dce@gmail.com

Abstract: *A progressive neurologic disorder which causes the brain to contract and brain cells to die is known as Alzheimer's disease. An issue related to this is always there that is to recognise it at its earliest stages. It can be acknowledged once the patient suffers from Mild Cognitive Impairment (MCI) and at that stage it cannot be cured as treatment of AD is not available right now that can alter its effect, they can only hinder its advancement. The base of this research paper are journal articles published on brain signals and diagnosis based on image processing of AD that are published in recent years. The field of magneto encephalogram (MEG) signal processing and electroencephalogram (EEG) are reviewed. The following methods are examined for image analysis: magnetic resonance imaging (MRI), functional MRI, structural MRI and diffusion tensor MRI. Detection and Diagnosis of AD during the early onset of a disease using computer and AI based technologies will influence the future of the treatment of this disease to a greater extent. These technological advancements will serve the doctors by aiding in the process of early diagnosis. In the medical world the earlier we make a diagnosis the better it is for the patient. These will help in creating a well thought and timed treatment of the disease. Hence, reducing its effects and progression.*

Keywords: EEG (Electroencephalogram), AD (Alzheimer's disease), Multiscale entropy (MSE)

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