

Literature Survey Paper on Epilepsy and Autism Spectrum Disorder Detection and Analysis Using Machine Learning

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Abstract: *The detection and cure of epilepsy and autism spectrum disorder (ASD) are significantly complicated by their co-occurrence. This survey research investigates an integrated method for identifying ASD using behavioural characteristic questionnaires and epilepsy using EEG corpus inside a single system. We provide an overview of all the relevant research, emphasizing the difficulties in diagnosing each of these disorders separately and in combination. Our suggested approach combines behavioural questionnaire assessments for ASD with EEG-based analysis for epilepsy detection in an effort to improve diagnostic accuracy and expedite the evaluation process. This study examines the approaches, difficulties, and developments in both domains, providing perspectives on possible overlaps and prospects for further investigation. So, an attempt has been made to review on the pattern detection methods for epilepsy seizure detection from EEG signals. More than 150 research papers have been discussed to determine the techniques for detecting epileptic seizures. Further, the literature review confirms that the pattern recognition techniques required to detect epileptic seizures varies across the electroencephalogram (EEG) datasets of different conditions. This is mostly owing to the fact that EEG detected under different conditions have different characteristics.*

Keywords: Autism Disorder, Machine Learning, Epilepsy, EEG corpus.

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