

Review Form 3

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_124851
Title of the Manuscript:	A Survey of Machine Learning Techniques for Accurate Seizure Detection and Future Forecasting
Type of the Article	Research

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PART 1: Review Comments

<u>Compulsory</u> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript explores the use of machine learning for seizure detection and prediction, with potential to improve patient care. It offers valuable insights into traditional and deep learning methods for EEG analysis. While it covers clinical challenges, more focus on trends like federated learning could boost relevance. Overall, it fills a key gap by evaluating machine learning in neurology.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title is generally suitable for the content. However, to improve clarity and precision, I suggest: "Comprehensive Survey of Machine Learning Techniques for Seizure Detection and Prediction: Challenges and Future Directions".</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract is well-structured, but it can benefit from more focus on the specific findings from the surveyed techniques. It is recommended to mention the key trends or challenges identified in the literature reviewed.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The manuscript is well-structured, with clearly defined subsections covering the technical aspects, challenges, and future directions in machine learning for seizure detection. However, the section on datasets could be shortened, with more critical analysis of the algorithms' performance and clinical utility. The focus on feature extraction in deep learning models should also be expanded for better coverage of the complexity involved in processing EEG data.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript is scientifically robust, providing a comprehensive review of machine learning methods for seizure detection.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The references are mostly up-to-date and cover a broad spectrum of relevant studies. However, I recommend including more recent works on federated learning and explainable AI in healthcare, which are emerging as important themes in machine learning for medical applications. References on real-time EEG processing in clinical environments would also add depth to the review.</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>1. The language of the manuscript is generally suitable for scholarly communication, but minor grammatical issues and awkward phrasing can be improved. For example, in section 1.3 'Research Gap,' the phrase 'technical achievements' should be expanded to reflect specific methodologies and their limitations.</p> <p>2. The formatting of tables and figures should be standardized, particularly Table 2, which is misaligned. Ensure all figures are properly referenced in the text.</p>	
<p><u>Optional/General</u> comments</p>	<p>The manuscript offers a good overview of machine learning techniques for seizure detection and prediction. However, it would benefit from discussing real-world challenges like data quality and the computational cost of deep learning. A more critical comparison between traditional and deep learning methods, especially regarding interpretability, would provide better insights into the balance between accuracy and explainability.</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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