

Review Form 3

Journal Name:	Asian Journal of Cardiology Research
Manuscript Number:	Ms_AJCR_128065
Title of the Manuscript:	Application of Artificial Intelligence Techniques for Heart Disease Prediction System
Type of the Article	Original Research Article

PART 1: 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>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript addresses an important topic in the field of artificial intelligence and healthcare by developing and evaluating machine learning-based heart disease prediction systems. Its focus on applying nine machine learning models to real-world healthcare data is particularly valuable for early disease diagnosis and treatment. The results, which highlight CatBoost and LGBM as the best-performing models, offer practical insights that can aid healthcare practitioners in improving diagnostic accuracy and efficiency. Furthermore, the manuscript has potential utility for researchers exploring machine learning applications in healthcare.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is appropriate and clearly reflects the manuscript's content. However, a slight refinement can be considered: Suggested Alternative Title: "Optimizing Heart Disease Prediction: A Comparative Study of Machine Learning Techniques"	
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.	The abstract is well-written but could benefit from a brief mention of the dataset's size and key features, as well as a sentence about the significance of the work for the healthcare sector. Additionally, including the implication of high recall values in the context of heart disease diagnosis would strengthen the abstract.	
Is the manuscript scientifically, correct? Please write here.	The manuscript appears scientifically sound, with appropriate methodologies and evaluation metrics. However, the authors could provide additional justification for their choice of train-test splits (70:30 and 90:10) and discuss whether other cross-validation techniques were considered. This would enhance the scientific rigor of the study.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are recent and relevant. However, the inclusion of a systematic review or meta-analysis on machine learning in heart disease prediction would add depth to the literature review. Suggested reference:	
Is the language/English quality of the article suitable for scholarly communications?	The manuscript is mostly well-written, but there are minor grammatical issues and some overly verbose sections, particularly in the description of standard machine learning algorithms. Simplifying these sections would improve readability.	
Optional/General comments	The inclusion of figures, particularly ROC curves and accuracy comparisons, is a strong aspect of the manuscript. However, better labeling and captions for figures and tables would improve clarity. Furthermore, a critical discussion of the limitations and potential biases in the dataset would strengthen the conclusions.	

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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>	

Reviewer Details:

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