ISSN: 2320-5407



International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-51364

Date: 03-05-2025

Title: Multiple Disease Prediction System

Recommendation:	Rating	Excel.	Good	Fair	Poor
Accept as it is YES	Originality				
Accept after minor revision	Techn. Quality				
Do not accept (<i>Reasons below</i>)	Clarity				
	Significance				

Reviewer's Name: Dr Aamina

Reviewer's Decision about Paper: Recommended for Publication.

Comments (Use additional pages, if required)

Reviewer's Comment / Report

Abstract

The abstract presents a concise overview of the study's objectives, methodology, and results. It clearly outlines the limitations of traditional diagnostic methods and introduces the use of machine learning to enhance diagnostic accuracy. The transition from SVM to CNN is well-explained, and the improvement in performance is highlighted effectively. The conclusion emphasizes the potential of CNN in medical diagnostics and suggests directions for future work, including dataset expansion and real-time applications. The abstract is appropriately structured and aligned with the research focus.

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Introduction

The introduction provides a relevant context for the research, emphasizing the importance of early disease detection in conditions such as diabetes, heart disease, and Parkinson's disease. It successfully outlines the limitations of conventional diagnostic approaches and the emerging role of artificial intelligence and machine learning in healthcare. The rationale for the project is clearly presented, noting the initial use of SVM and the shift to CNN to improve prediction accuracy. The writing effectively communicates the objective of developing a machine learning-based system to assist medical practitioners and enhance patient care.

Literature Review

The literature review is divided into two main sections: diabetes and heart disease. It offers a comprehensive summary of previous work using various machine learning algorithms, including decision trees, Naive Bayes, CART, Adaboost, Logiboost, and SVM. The review demonstrates familiarity with the use of the Pima Indian dataset and highlights the comparative performance of each algorithm in terms of accuracy.

For heart disease, the review mentions the use of the Cleveland dataset and compares results from Bayes Net, SVM, and Functional Trees. The inclusion of accuracy metrics for different models enhances the review's analytical value. The literature is well-referenced and provides a clear background to support the methodology adopted in the present study.

Methodological Overview

While the methodology section is not explicitly provided, the abstract and introduction imply a clear methodological progression. Initially, SVM was implemented for disease classification, but due to its lower accuracy, CNN was employed for improved performance. The mention of training and testing accuracy reflects a supervised learning framework and indicates a robust validation process. The choice of CNN for this type of classification task is justified by its demonstrated superior performance in the study.

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Results and Discussion (Inferred)

The abstract indicates that CNN yielded significantly higher accuracy compared to SVM, supporting the transition to deep learning models for this application. The emphasis on training and testing results suggests a well-structured evaluation process. Although specific numerical results are not detailed in the provided content, the qualitative assessment of CNN's effectiveness provides a clear insight into the model's potential utility.

Conclusion and Future Scope

The study concludes with an acknowledgment of CNN's diagnostic accuracy and reliability in early disease detection. It appropriately identifies directions for future research, such as expanding datasets and applying the model in real-time clinical scenarios. This forward-looking perspective enhances the research's relevance and underscores its contribution to ongoing developments in AI-assisted healthcare.

Overall Evaluation

This paper explores an important application of machine learning in healthcare. The transition from traditional models (SVM) to deep learning (CNN) is justified with performance improvements. The literature review is thorough and well-cited, providing context and support for the research direction. The abstract and introduction clearly state the problem, methodology, and intended outcomes. The study holds practical relevance and scientific merit, contributing meaningfully to the field of AI in medical diagnostics.