**A SECURED PATIENT DATA TRANSMISSION USING BLOCKCHAIN TECHNOLOGY AND INTEGRATING OPTIMIZED DEEP LEARNING ALGORITHM FOR DISEASE PREDICTION**

Abstract

In recent years, the healthcare industry has increasingly depends on digital solutions to secure patient data. Protecting the information ensures that patients' personal and medical details remain confidential, maintaining trust in healthcare systems. This research aims to utilize blockchain technology to enhance the transmission and privacy of patient health information and access control mechanism to empower data owner with precise control over their information. Additionally, the research also focuses on feature selection techniques to improve the prediction accuracy of heart disease.A deep learning model will be developed and evaluated across performance metrics such as precision, recall, F1-score, and ROC. The enhanced feature selection techniques will identify the most relevant predictors, thereby improving the reliability of heart disease diagnoses. The proposed research not only secure patient data but also enhance the prediction of heart disease, leading to better patient outcomes.

OBJECTIVES:

* To utilize blockchain technology for patient data transmission and privacy-preserving mechanism to secure patient health information.
* To design an access control mechanism to facilitate access rights to data owner.
* To enhance Feature Selection Technique for Improved Heart Disease Prediction.
* To develop a deep learning model to evaluate the performance in terms of various metrics.