# A Comparative Study: Classification of Cardiovascular Diseases through Various Approaches of Machine Learning Classifiers

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## ABSTRACT

In the current scenario technology is playing a key role in every sector of life. The health sector is not an exception. Now digital hands are playing a vital role in the diagnosis of cardiovascular disease (CVD). Cardiovascular disease is now a very common disease, so it's necessary to find an authentic method to predict the disease. Non communicable diseases (NCDs), including cardiovascular diseases are estimated to account for 60% of total adult deaths in India, and cardiovascular diseases account for over a quarter (26%) of these deaths. In the proposed study, a machine learning model has been developed that can easily identify and classify people with heart diseases by giving certain required parameters to model. Efficiency of the model may vary depending upon the data availability and state of data. Proposed research work may provide the comparison chart of various machine learning algorithms. The proposed model may be one of the solutions to classify the various heart diseases. The proposed model can be used at any geographical and at any conditions.

**Keywords:** Heart Disease, Cardiovascular Diseases (CVDs), Digital Authentication, Machine Learning (ML), Random Forest Classifier, Decision Tree Classifier, Gradient Boosting Classifier, K Neighbors Classifier, Support Vector Machine, Univariate Analysis, Bivariate Analysis, Multivariate Analysis.

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