

# Prediction of Cardiovascular Disease using Classification Algorithms

Mohit Baliyan<sup>a</sup>

<sup>a</sup>CSE, IMS Engineering College, Ghaziabad, 201302, Uttar Pradesh, India

## Abstract

Cardiovascular disease is considered as one of the main causes of death globally. Many risk factors such as smoking, family history, sex and alcohol intake make cardiovascular disease difficult to predict and prevent. But the rise in machine learning approaches is a reliable way to solve this tedious problem. The motive of this study is to propose a model which predicts if a person is likely to have cardiovascular disease or not with maximum accuracy. Therefore four machine learning algorithms, namely Decision Tree, Naive Bayes, Logistic Regression and K Nearest Neighbors are used in this experiment to predict cardiovascular disease at an early stage. Experiments are performed on Cardiovascular Disease Dataset which is sourced from Kaggle repository. Precision, Accuracy, Recall and F-measure are used to evaluate the performances of all the four algorithms. Results obtained show Logistic Regression outperforms with the highest accuracy of 72.90 % comparatively to other algorithms. Receiver Operating Characteristic ( ROC ) curves are used to verify these results in systemic and appropriate manner.