

CARDIO VASCULAR DISORDER PREDICTION USING MACHINE LEARNING CLASSIFICATION

Submitted in partial fulfillment of the requirements for the award of Bachelor of
Engineering degree in Computer Science and Engineering

by

**MANNE PRANEETHA (REG.NO. 37110432)
MALEPATI SRI VARSHA (REG.NO. 37110421)**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF COMPUTING**

SATHYABAMA

**INSTITUTE OF SCIENCE AND
TECHNOLOGY (DEEMED TO BE
UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

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Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119
www.sathyabama.ac.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING **BONAFIDE CERTIFICATE**

This is to certify that this Project Report is the bonafide work of **MANNE PRANEETHA (REG.NO. 37110432), MALEPATI SRI VARSHA (REG.NO. 37110421)** who have done the Project work as a team who carried out the project entitled “**CARDIO VASCULAR DISORDER PREDICTION using MACHINE LEARNING CLASSIFICATION**” under my supervision from **NOVEMBER 2020** to **APRIL 2021**.

Internal Guide
Dr. A. Jesudoss, M.E., Ph.d.,

Head of the Department

Submitted for Viva voce Examination held on_____

Internal Examiner

External Examiner

DECLARATION

I, **MALEPATI SRI VARSHA (37110421), MANNE PRANEETHA (37110432)** hereby declare that the Project Report entitled “**CARDIO VASCULAR DISORDER PREDICTION using MACHINE LEARNING CLASSIFICATION**” done by me under the guidance of **Dr. A. JESUDOSS, M.E., Ph.D.**, (Internal) and _ (External) is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering / Technology degree in computer science and engineering.

DATE:

PLACE:

SIGNATURE OF THE CANDIDATE

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ABSTRACT

Heart disease is one of the most significant causes of mortality in the world today. Prediction of cardiovascular disease is a critical challenge in the area of clinical data analysis. Machine learning (ML) has been shown to be effective in assisting in making decisions and predictions from the large quantity of data produced by the healthcare industry. We have also seen ML techniques being used in recent developments in different areas of the Internet of Things (IoT). Various studies give only a glimpse into predicting heart disease with ML techniques. In this paper, we propose a novel method that aims at finding significant features by applying machine learning techniques resulting in improving the accuracy in the prediction of cardiovascular disease. The prediction model is introduced with different combinations of features and several known classification techniques. We produce an enhanced performance level with an accuracy level of 88.7% through the prediction model for heart disease with the hybrid random forest with a linear model (HRFLM).

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LIST OF ABBREVIATIONS

ML	Machine Learning
SVM	Support Vector Machine
DTC	Decision Tree Classifier
KNN	K-Nearest Neighbor
RFC	Random Forest Classifier

