A Project Report

On

Heart Disease Prediction Based on Self-Interested Test Reports

Submitted to

Acharya Nagarjuna University

In Partial Fulfilment of the Requirement for the Award of Bachelor's Degree in Information Technology

by

D. Naga Phanindra	**Y19AIT428**
G. Ramya	**Y19AIT441**
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Under the guidance of
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2022-2023

Affiliated to

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CERTIFICATE

This is to certify that the Project entitled

"Heart Disease Prediction Based on Self-Interested Test Reports"

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is a record of bonafide work carried out by them, in the partial fulfillment of the requirement for the award of Degree of Bachelor of Technology (Information Technology) at BAPATLA ENGINEERING COLLEGE, Bapatla under the Acharya Nagarjuna University. This work is done during the year 2022-2023, under our guidance.

Date: / /

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ABSTRACT

Heart-related diseases or cardiovascular diseases (CVDs) are the main reason for a huge number of deaths in the world over the last few decades and has emerged as the most life-threatening disease, not only in India but in the whole world. So, there is a need for a reliable, accurate, and feasible system to diagnose such diseases in time for proper treatment. Machine Learning algorithms and techniques have been applied to various medical datasets to automate the analysis of large and complex data. Many researchers, in recent times, have been using several machine learning techniques to help the healthcare industry and professionals in the diagnosis of heart-related diseases. Heart is the next major organ compared to the brain which has more priority in the Human body. It pumps the blood and supplies it to all organs of the whole body. Prediction of occurrences of heart diseases in the medical field is significant work. Data analytics is useful for prediction from more information, and it helps the medical center to predict various diseases. A huge amount of patient-related data is maintained monthly. The stored data can be useful for the source of predicting the occurrence of future diseases. Some of the data mining and machine learning techniques are used such as Artificial Neural Network (ANN), Random Forest, and Support Vector Machine (SVM). Prediction and diagnosing of heart disease become a challenging factor faced by doctors and hospitals both in India and abroad. To reduce the large scale of deaths from heart diseases, a quick and efficient detection technique is to be discovered. Data mining techniques and machine learning algorithms are very important in this area. The researchers are accelerating their research work to develop software with the help of machine learning algorithms which can help doctors to decide both prediction and diagnosing of heart disease. The main objective of this research project is to predict a patient's heart disease using machine learning algorithms.

Keywords: Neural Networks, Machine Learning, Supervised learning, Support vector machine, Random Forest.

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