

G.Narayanamma Institute of Technology & Science

(For women)

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(An ISO 9001:2015 Certified Institution)

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HEART DISEASE PREDICTION

BY

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ABSTRACT

This Project aims at Prediction of Heart disease of an individual with the help of Machine Learning(ML) techniques for classifying whether a person is suffering from heart disease or not by using datasets. We would like to deploy the predictions onto a web application to provide a responsive and dynamic platform to check a person's heart condition based on the information provided by them and help spread awareness. This would surely help people by alerting them any risk of underlying heart ailments and urge them to consult a cardiologist and take proper treatment.

Cardiovascular disease often called "heart disease" refers to conditions that involve blocked or narrowed blood vessels that can lead to a heart attack, chest pain (angina) or stroke. It is one of the major causes of mortality and morbidity among the world's population. Statistically 70 percent of the urban population in India is at a risk of having a heart disease. Coronary Heart Disease (CHD) is the most common type, killing over 370,000 people annually. Heart disease has escalated among the younger generation with a significant risk in both males and females. This makes heart disease a major concern to be dealt with. According to studies, the main cause of death in COVID-19 patients is severe pneumonia. However, it has been reported that mortality in the patients is significantly associated with pre-existing cardiovascular conditions. In another study, Italian researchers highlighted the role of hypertension in increasing COVID-19-related mortality as high as 2.5-times in this subgroup.

We would build Machine learning classification models, analyse and pre-process the data, train the models. Python Flask framework can be used to build a web app that is deployed using Heroku so as to showcase the results. The users enter their details and their heart condition, and the application will predict what kind of disease they might be having. Heart disease is one of the major concerns of today's society. Our model focuses mainly to help people, to fight against the risk of heart strokes or other heart problems by notifying them beforehand and alerting individuals with any kind of symptoms (concerned to heart) to consult experts' opinions.

SYSTEM REQUIREMENTS:

Software Requirements:

Platform	- Windows OS
Front End	- HTML, CSS, Bootstrap
Development Tool	- Flask, Jupyter Notebook
Back End	- Python

Other technologies. - Machine learning

Hardware Requirements:

Name of the Processor- INTEL CORE i5

Hard Disk Capacity - 256 GB SSD

RAM Capacity - 8 GB