## Industry Oriented Mini Project Report

On

## Heart failure prediction using ML

Submitted in partial fulfillment of the requirements for the award of the Degree of

### Bachelor of Technology

In

### COMPUTER SCIENCE AND ENGINEERING

### By

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**CERTIFICATE**

## This is to certify that the Industrial mini project entitled "Heart failure prediction using ML" is submitted by K SHWEJAN SHASHANK (16241A0586), G. SHASHANK (16241A0575), K.MAHESHWAR REDDY(17245A0513), T. CHARAN(17245A0517) in partial fulfillment of the requirement for the award of the degree in BACHELOR OF TECHNOLOGY in Computer Science and Engineering during the academic year 2018-2019.

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# DECLARATION

I hereby declare that the industrial mini project entitled **"** Heart failure prediction using ML **"** is the work done during the period from 10th December 2018 to 4th April 2019 and is submitted in the partial fulfillment of the requirements for the award of degree of Bachelor of Technology in Computer Science and Engineering from Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous under Jawaharlal Nehru Technology University, Hyderabad). The results embodied in this project have not been submitted to any other University or Institution for the award of any degree or diploma.

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**ABSTRACT**

Machine learning can be used to predict the Heart Disease. Cleveland Heart Disease dataset has some non-linear tendency. Improvement on Heart Disease Prediction technique by correctly adjusting the Random Forest Machine Learning Model (fetching 85.81% accuracy).Health care data contains hidden information which is useful for making effective decisions.This can help patients in getting a quick diagnosis with a lot less cost.

The main objective of this project is to develop a prototype Intelligent Heart Disease Prediction System using three data mining modeling techniques, namely, Decision Trees, SVM and Random forest. This practice leads to unwanted biases, errors and excessive medical costs which affects the quality of service provided to patients. Thus we proposed the computer based patient records could reduce medical errors, enhance patient safety decrease unwanted practice variation, and improve patient outcome.

So, we can conclude that we can get the accurate result with accuracy of 89.7% from this project which uses machine learning techniques such as support vector machine(SVM) and random forests.

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