

**HEART DISEASE PREDICTION
USING
MACHINE LEARNING**

*A Project report submitted in partial fulfilment of the requirements for
the award of the degree of*

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

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CERTIFICATE

This is to certify that the project report entitled "HEART DISEASE PREDICTION USING MACHINE LEARNING" submitted by S. Pavan Kumar (18811A0558), K. Chiru Chaitanya (18811A0532), P. Manikanta (18811A0551), G. Alekhya (18811A0513), G. Bhargavi (18811A0522) in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering of AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY. Makavarapalem is a record of bonafide work carried out under my guidance and supervision.


Project Guide


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ABSTRACT

Machine Learning is used across many ranges around the world. The healthcare industry is no exclusion. Machine Learning can play an essential role in predicting presence/absence of locomotors disorders, heart diseases and more. Such information, if predicted well in advance, can provide important intuitions to doctors who can then adapt their diagnosis and dealing per patient basis. We work on predicting possible heart diseases in people using Machine Learning algorithms. In this project we perform the comparative analysis of classifiers like decision tree, Naïve Bayes, KNN, Logistic Regression, SVM and we propose an ensemble classifier which perform hybrid classification by taking strong and weak classifiers since it can have multiple number of samples for training and validating the data so we perform the analysis of existing classifier and proposed classifier like Random Forest which can give the better accuracy and predictive analysis.

Keywords: SVM; KNN; Naive Bayes; Decision Tree; Random Forest;
Logistic Regression; python programming; confusion matrix; correlation matrix.