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A Hybrid Intelligent System for the Prediction of Heart Disease Using Machine Learning Algorithms

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Abstract: *In today's modern world cardiovascular disease is the most lethal one. This disease attacks a person instantly that might create unexpected consequences for the human life. So diagnosing patients correctly on time is the most challenging task for the medical fraternity. The heart disease treatment is quite high and not affordable by most of the patients particularly in India. The research scope is to develop an early prediction treatment using data mining technologies. Now a day every hospital keeps the periodical medical reports of cardiovascular patients through some hospital management system to manage their health-care. The data mining techniques namely decision tree and random forest are used to analyze heart attack dataset where classification of more common symptoms related to heart attack is done using c4.5 decision tree algorithm, alongside, random forest is applied to improve the accuracy of the classification result of heart attack prediction. In this system various data mining technologies are applied to make a proactive approach against failures in early predictions diagnosis of the disease. We proposed an automated system for medical diagnosis that would enhance medical care and reduce cost. Our aim is to provide a ubiquitous service that is both feasible, sustainable and which also make people to assess their risk for heart attack at that point of time or later.*

Keywords: Heart attack prediction, ML, Random Forest, Decision Tree, Java, servlet, etc

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