



Aditya College of Engineering & Technology

Aditya Nagar, ADB Road, Surampalem - 533437

DEPARTMENT OF INFORMATION TECHNOLOGY

B. Tech 4/4, II-SEMESTER

II Semester 2021-22

DEVELOPING INTELLIGENT HEART ATTACK PREDICTION SYSTEM USING BAGGING BASED DECISION TREE ALGORITHM APPROACH

ABSTRACT

Heart disease is becoming a more fatal problem in today's world and the diagnosis of heart disease in most cases depends on a complex combination of clinical data. It takes more time to diagnose the exact condition. The main objective of our system is to develop the heart disease predict system that can assist users in predicting heart disease status based on the clinical data. So, here we are using a bagging-based decision tree algorithm which is based on machine learning. The bagging method overcomes the problem of overfitting due to decision trees and increases the performance. We are using 13 important clinical data attributes like blood pressure, cholesterol level and many others. Heart disease, alternatively known as cardiovascular disease, encases various conditions that impact the heart and are the primary basis of death worldwide over the span of the past few decades. It associates many risk factors in heart disease and a need of the time to get accurate, reliable and sensible approaches to make an early diagnosis to achieve prompt management of the disease. Data mining is a commonly used technique for processing enormous data in the healthcare domain.

Course Outcomes (COs)

Course Outcomes

After completing this course, the student will be able to:

CO Number	CO Statement	Taxonomy
CO1	Demonstrate the technical knowledge to identify problems in the field of Information Technology and its allied areas.	Understand
CO2	Use literature to identify the objective, scope and the concept of the work.	Apply
CO3	Analyze and formulate technical projects with a comprehensive and systematic approach.	Analyse
CO4	Identify the modern tools to implement technical projects.	Evaluate
CO5	Design engineering solutions for solving complex engineering problems.	Create
CO6	Develop effective communication skills, professional behaviour and team work.	Understand

CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	1						3	2	2	2	3	2	
CO2	2	1	2	2	1				3	2	2	2	3	3	1
CO3	1	1	3	3	1				3	2	2	2	3	2	1
CO4	2	1	1	2	3				3	2	2	2	2	1	2
CO5	2	2	3	3	2				3	2	3	2	3	1	1
CO6	1	1	1	2	1				2	3	2	2	3	2	1
Course	1.8	1.3	1.8	2.0	1.3				2.8	2.2	2.2	2.0	2.8	1.8	1.0

PO1	Engineering Knowledge	PO7	Environment & Sustainability
PO2	Problem Analysis	PO8	Ethics
PO3	Design / Development of Solutions	PO9	Individual & Team Work
PO4	Conduct Investigations of complex problems	PO10	Communication Skills
PO5	Modern Tool usage	PO11	Project Management & Finance
PO6	Engineer & Society	PO12	Life-long Learning