## **IJARSCT**



## International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal



Impact Factor: 7.67

Volume 5, Issue 12, April 2025

## Cardio-Matrix Patient Monitoring and Predictive Response System

Prof. Minal Solanki<sup>1</sup>, Achal Patil<sup>2</sup> And Mayuri Dudhe<sup>3</sup>

Assistant Professor, Master Computer Application<sup>1</sup>
Student, Master of Computer Application (MCA) Department<sup>2,3</sup>
K.D.K College of Engineering, Nagpur, Maharashtra, India
minal.solanki@kdkce.edu.in, achalpatil.mca23@kdkce.edu.in,
mayuridudhe.mca23@kdkce.edu.in

**Abstract:** This article discusses the creation of the "Cardio-Matrix Patient Monitoring and Predictive Response System," an application based on GUI developed with Python and Tkinter. The platform solves problems of information management and system performance in the health sector by presenting a means of assessing and saving health information in an organized way. It utilizes a MySQL database for efficient data storage and combines machine learning algorithms such as Naive Bayes, Random Forest, and K-Nearest Neighbors (KNN) to aid in the prediction of heart diseases

**Keywords:** Heart Attack Prediction, Machine Learning Techniques, Predictive Modeling, Cardiovascular Disorders, Clinical Data Analysis, and Decision Support in Healthcare





