Date:

SCHOOL OF ENGINEERING

DEPARTMENT OF AI & ML (III Year II Semester) Application Development – Web application with Natural Language Processing & IOT Explore (MR22-1CS0264)

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| **Name of the Guide** | Prof. Sweety Julia | |
| **Project Title** | Heart Pulse Monitoring System | |
| **Project Title**  **(Any Change)** | Cardio Track: Real-Time Heart Rate and Disease Risk Prediction System | |
| **Section Name & Batch Number** | AIML-Epsilon , ET-08 | |
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| **Abstract Work** | This project presents the development of an integrated heart rate monitoring and heart disease prediction system utilizing Arduino and machine learning. The system employs a real-time heart pulse monitoring device based on an Arduino UNO, a photosensor (ADPS-9008), and a green LED to detect blood flow and calculate the heart rate (BPM). The BPM values are transmitted to a computer via serial communication, where they are processed and integrated into a machine learning model for heart disease prediction. The machine learning model, trained on various health indicators (such as cholesterol levels and age), predicts the likelihood of heart disease based on real-time inputs, including the continuously monitored BPM. The system offers an efficient and user-friendly approach to heart disease risk assessment, providing personalized health monitoring with the potential for early detection. The integration of real-time data with predictive analytics allows for more accurate, dynamic, and actionable health insights. | |

**Project Guide AD-Mentor AD-Incharge DEAN (AI -ML)**