Project Design Phase-II

Solution Requirements
(Functional &Non-functional)

Date	22 October 2022
Team ID	PNT2022TMID 30834
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through the Form Registration, Registration through the Google account and Registration through the Facebook account.
FR-2	User Confirmation	Confirmation is done through Email and Mobile number through OTP
FR- 3	User interface	User Details Section Find Arrhythmia Section User's Database Section Logout Option
FR- 4	Data processing	Evaluating the model using test data DL algorithm for a accuracy result Trained CNN model using Tensorflow, Keras
FR-5	Predict ECG image	User upload theirs ECG Scanned images for prediction process. After uploading read Ecg images and predict images.

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Wireless ECG body sensor is a feasible solution for reliable and accurate long-term heart rhythm monitoring**.** The monitoring is done by using Cardiac Event Monitor.
NFR-2	Security	It is applicable for encrypting and decrypting personalized Electrocardiograph ECG signals for secure transmission.
NFR-3	Reliability	The extent to the consistently performs the specified functions without failure
NFR-4	Performance	It provides a accurate classification as a output. It provides very good performance for finding the disease.
NFR-5	Availability	Availability is the percentage of time in a given period that a system is available to perform its task and function under normal conditions.
NFR-6	Scalability	The ability of the user problem in arrhythmia disease to handle an increase in workload without performance degradation, or its ability to quickly enlarge.