

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	15 October 2022
Team ID	PNT2022TMID52880
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User interface and input	Check your profile and choose your file Upload file in .dat format
FR-4	Data processing	Evaluating the model using test data
FR-5	Report generation	Output will be a text indicating the type of arrhythmia the patient has

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Long term heart rhythm monitoring system with Deep learning model.
NFR-2	<b>Security</b>	Data acquired for training and testing must be protect by security models.
NFR-3	<b>Reliability</b>	Error free. Must be very accurate for every scenario.
NFR-4	<b>Performance</b>	<ul style="list-style-type: none"><li>• Accurate classification</li><li>• Inclusive model</li></ul>
NFR-5	<b>Availability</b>	Cloud based web application will improve the availability of solution built.
NFR-6	<b>Scalability</b>	Accuracy must not be affected. Fast and quick classification will improve the scalability of the solution.