

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID00351
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation.
2.	Idea / Solution description	Spectrograms are employed generated from 1-D ECG signals using STFT. In addition, data augmentation and CNN-based methods are used with 2-D spectrograms as input.
3.	Novelty / Uniqueness	Can achieve better accuracy and efficiency even with large datasets.
4.	Social Impact / Customer Satisfaction	Reduced hardware complexity and less time consumption.
5.	Business Model (Revenue Model)	Capital equipment revenue model.
6.	Scalability of the Solution	Since we use improvised algorithms for training and processing large datasets, it performs computations in a cost-effective and time-saving way.