**Project Design Phase-I**

**Proposed Solution Template**

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

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

| **S.No.** | **Parameter** | **Description** |
| --- | --- | --- |
|  | Problem Statement (Problem to be solved) | To classify the given ECG pattern on the basis of different types of Arrhythmia. |
|  | Idea / Solution description | We use a web application through which the user selects the image which is to be classified into the arrhythmia type by an effective electrocardiogram (ECG) arrhythmia classification method. It can be done by using a convolutional neural network (CNN), in which we classify ECG into seven categories, one being normal and the other six being different types of arrhythmia using deep two-dimensional CNN with grayscale ECG images The image is fed into the model that is trained and the cited class will be displayed on the webpage. |
|  | Novelty / Uniqueness | The proposed solution considers other physical abnormalities which contribute to the disease thereby helps in exact classification of arrhythmia and to make people awareness on their general health. |
|  | Social Impact / Customer Satisfaction | Easy and a quick method of classification of arrhythmia which replaces the traditional method, thereby allowing a one click solution to its users. |
|  | Business Model (Revenue Model) | ● Can collaborate with diagnosis centres and hospitals.  ● Can collaborate with government for health awareness camps. |
|  | Scalability of the Solution | Can be used by any individual throughout the world who has a minimal knowledge of web application usage. |