Project Objectives

Date	19 November
Team ID	PNT2022TMID39864
Project Name	Project - Classification of Arrhythmia by using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	

Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

We aim to build an effective electrocardiogram (ECG) classification of arrhythmia, method using a Convolutional Neural Network (CNN) using Deep Learning, in which we classify ECG into six different categories namely :

- Right Bundle Branch Block

- Premature Atrial Contraction

- Ventricular Fibrillation

- Premature Ventricular Contractions

- Left Bundle Branch Block

- Normal

We intend on creating a web application in which the user can upload an image and predict the results of heartbeat. This is a web application created where the user selects the image which is to be classified. The image is fed into the model that is trained on publicly available datasets of ECG and is accordingly classified into one of the above mentioned classes which will be displayed on the webpage. The following technologies were used to create a webapplication.

- Python

- HTML/CSS/JavaScript/Bootstrap – Front End Development

- TensorFlow Flask – Backend Development

- Image Processing Basics

- IBM Watson – Training the Deep Learning Model

- • IBM Cloud – Hosting

• Jupiter notebook

• Google Collab

• Tensor