

Team ID	PNT2022TMID02786
Project Name	Classification of Arrhythmia by using Deep learning with 2-D ECG Spectral Image Representation

Accuracy Screenshot

```
384/384 [=====] - 185s 479ms/step - loss: 0.7270 - accuracy: 0.8091 - val_loss: 0.5132 - val_accuracy: 0.8000
Epoch 2/10
384/384 [=====] - 173s 451ms/step - loss: 0.1353 - accuracy: 0.9604 - val_loss: 0.3863 - val_accuracy: 0.8454
Epoch 3/10
384/384 [=====] - 172s 449ms/step - loss: 0.0927 - accuracy: 0.9733 - val_loss: 0.3850 - val_accuracy: 0.8571
Epoch 4/10
384/384 [=====] - 173s 451ms/step - loss: 0.0684 - accuracy: 0.9799 - val_loss: 0.3967 - val_accuracy: 0.8703
Epoch 5/10
384/384 [=====] - 172s 446ms/step - loss: 0.0542 - accuracy: 0.9836 - val_loss: 0.4647 - val_accuracy: 0.8835
Epoch 6/10
384/384 [=====] - 171s 445ms/step - loss: 0.0438 - accuracy: 0.9880 - val_loss: 0.4790 - val_accuracy: 0.8806
Epoch 7/10
384/384 [=====] - 171s 446ms/step - loss: 0.0399 - accuracy: 0.9893 - val_loss: 0.5513 - val_accuracy: 0.8733
Epoch 8/10
384/384 [=====] - 171s 445ms/step - loss: 0.0294 - accuracy: 0.9915 - val_loss: 0.6389 - val_accuracy: 0.8703
Epoch 9/10
384/384 [=====] - 174s 452ms/step - loss: 0.0262 - accuracy: 0.9916 - val_loss: 0.7639 - val_accuracy: 0.8623
Epoch 10/10
384/384 [=====] - 176s 459ms/step - loss: 0.0167 - accuracy: 0.9955 - val_loss: 0.9166 - val_accuracy: 0.8667

Out[8]: <keras.callbacks.History at 0x213c702a700>
```

Summary Screenshot

```
In [9]: model.summary()

Model: "sequential"

Layer (type)                Output Shape                Param #
=====
rescaling (Rescaling)        (None, 180, 180, 3)        0
conv2d (Conv2D)               (None, 178, 178, 32)       896
max_pooling2d (MaxPooling2D) (None, 89, 89, 32)         0
conv2d_1 (Conv2D)             (None, 87, 87, 32)         9248
max_pooling2d_1 (MaxPooling2D) (None, 43, 43, 32)         0
flatten (Flatten)            (None, 59168)              0
dense (Dense)                 (None, 32)                 1893408
dense_1 (Dense)              (None, 6)                  198
=====
Total params: 1,903,750
Trainable params: 1,903,750
Non-trainable params: 0
```