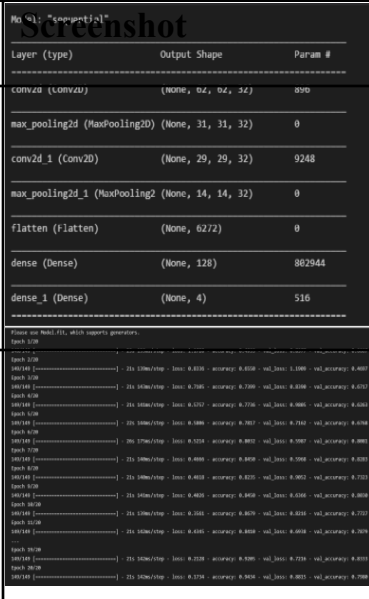


## Project Development Phase Model Performance Test

Date	19 November2022
Team ID	PNT2022TMID38617
Project Name	Natural Disaster Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	10Marks

### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S. No.	Parameter	Values	<div>  </div>
1.	Model Summary	Total params:813,604 Trainable params:813,604 Non-trainableparams:0	Screenshot showing Keras model summary and training logs. The summary lists layers: conv2d (100x100x3), max_pooling2d (MaxPooling2D), conv2d_1 (Conv2D), max_pooling2d_1 (MaxPooling2D), flatten (Flatten), dense (Dense), and dense_1 (Dense). The training logs show accuracy and loss over 10 epochs.
2.	Accuracy	Training Accuracy - 94.3% Validation Accuracy- 83.33%	Screenshot showing Keras model summary and training logs. The summary lists layers: conv2d (100x100x3), max_pooling2d (MaxPooling2D), conv2d_1 (Conv2D), max_pooling2d_1 (MaxPooling2D), flatten (Flatten), dense (Dense), and dense_1 (Dense). The training logs show accuracy and loss over 10 epochs.

## Model Summary:

Model: "sequential"		
Layer (type)	Output Shape	Param #
=====		
conv2d (Conv2D)	(None, 62, 62, 32)	896
-----		
max_pooling2d (MaxPooling2D)	(None, 31, 31, 32)	0
-----		
conv2d_1 (Conv2D)	(None, 29, 29, 32)	9248
-----		
max_pooling2d_1 (MaxPooling2D)	(None, 14, 14, 32)	0
-----		
flatten (Flatten)	(None, 6272)	0
-----		
dense (Dense)	(None, 128)	802944
-----		
dense_1 (Dense)	(None, 4)	516
=====		

## Accuracy:

```
Please use Model.fit, which supports generators.
Epoch 1/20
149/149 [=====] - 23s 153ms/step - loss: 1.1720 - accuracy: 0.4933 - val_loss: 0.8377 - val_accuracy: 0.6667
Epoch 2/20
149/149 [=====] - 21s 139ms/step - loss: 0.8336 - accuracy: 0.6550 - val_loss: 1.1909 - val_accuracy: 0.4697
Epoch 3/20
149/149 [=====] - 21s 143ms/step - loss: 0.7105 - accuracy: 0.7399 - val_loss: 0.8390 - val_accuracy: 0.6717
Epoch 4/20
149/149 [=====] - 21s 141ms/step - loss: 0.5757 - accuracy: 0.7736 - val_loss: 0.9805 - val_accuracy: 0.6263
Epoch 5/20
149/149 [=====] - 22s 144ms/step - loss: 0.5806 - accuracy: 0.7817 - val_loss: 0.7162 - val_accuracy: 0.6768
Epoch 6/20
149/149 [=====] - 26s 175ms/step - loss: 0.5214 - accuracy: 0.8032 - val_loss: 0.5987 - val_accuracy: 0.8081
Epoch 7/20
149/149 [=====] - 21s 140ms/step - loss: 0.4666 - accuracy: 0.8450 - val_loss: 0.5968 - val_accuracy: 0.8283
Epoch 8/20
149/149 [=====] - 21s 140ms/step - loss: 0.4618 - accuracy: 0.8235 - val_loss: 0.9052 - val_accuracy: 0.7323
Epoch 9/20
149/149 [=====] - 21s 141ms/step - loss: 0.4026 - accuracy: 0.8450 - val_loss: 0.6366 - val_accuracy: 0.8030
Epoch 10/20
149/149 [=====] - 21s 139ms/step - loss: 0.3561 - accuracy: 0.8679 - val_loss: 0.8216 - val_accuracy: 0.7727
Epoch 11/20
149/149 [=====] - 21s 142ms/step - loss: 0.4345 - accuracy: 0.8410 - val_loss: 0.6938 - val_accuracy: 0.7879
...
Epoch 19/20
149/149 [=====] - 21s 142ms/step - loss: 0.2128 - accuracy: 0.9205 - val_loss: 0.7216 - val_accuracy: 0.8333
Epoch 20/20
149/149 [=====] - 21s 142ms/step - loss: 0.1734 - accuracy: 0.9434 - val_loss: 0.8815 - val_accuracy: 0.7980
```