Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID35901
Project Name	Project - Natural Disasters Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Model Summary	-	Model: "sequential" _____ Layer (type) Output Shape Param # ===== conv2d (Conv2D) (None, 297, 297, 32) 896 max_pooling2d (MaxPooling2D (None, 148, 148, 32) 0) conv2d_1 (Conv2D) (None, 146, 146, 64) 18496 max_pooling2d_1 (MaxPooling (None, 73, 73, 64) 0 2D) dropout (Dropout) (None, 73, 73, 64) 0 conv2d_2 (Conv2D) (None, 71, 71, 32) 18464 max_pooling2d_2 (MaxPooling (None, 35, 35, 32) 0 2D) dropout_1 (Dropout) (None, 35, 35, 32) 0 flatten (Flatten) (None, 39200) 0 dense (Dense) (None, 256) 10035456 dropout_2 (Dropout) (None, 256) 0 dense_1 (Dense) (None, 4) 1028 ===== Total params: 10,074,340 Trainable params: 10,074,340 Non-trainable params: 0 _____
2.	Accuracy	Training Accuracy - 88.841% Validation Accuracy - 88.01%	310/310 [==========] - 583s 2s/step - loss: 0.1968 - accuracy: 0.9374 - val_loss: 0.3743 - val_accuracy: 0.8801

3.	Confidence Score	Class Detected - 0-Cyclone, 1-Earthquake 2-Flood 3-Wildfire Confidence Score – Class 1- 0.93 Class 2- 0.89 Class 3- 0.85 Class 4- 0.89	CNN Disaster Classification Model Accuracy on test set: 0.8881 precision recall f1-score support 0 0.96 0.90 0.93 94 1 0.86 0.92 0.89 136 2 0.87 0.84 0.85 108 3 0.90 0.88 0.89 109 accuracy 0.89 447 macro avg 0.89 0.89 0.89 447 weighted avg 0.89 0.89 0.89 447