

# EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRE

## IMAGE PRE-PROCESSING

### APPLYING IMAGEDATAGENERATOR TO TRAIN AND TEST DATASET

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Project Name	Project- Emerging Methods For Early Detection of Forest Fire

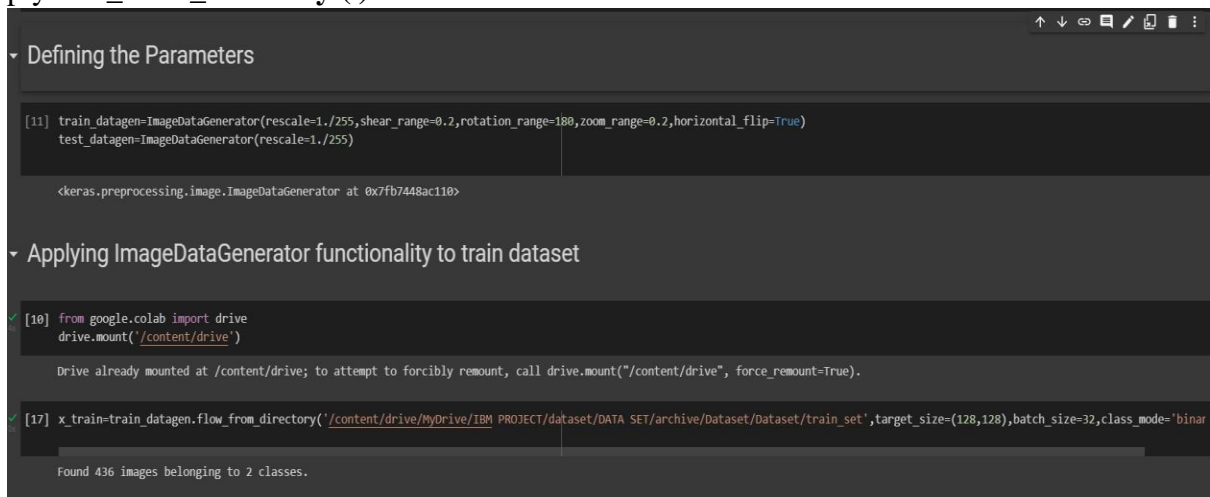
The ImageDataGenerator class has three methods,

- 1.flow ( ),
- 2.flow\_from\_directory ( )
- 3.flow\_from\_dataframe ( ) to read the images from a big numpy array and folders containing images.

flow\_from\_directory ( ) expects at least one directory under the given directory path.

#### APPLYING ImageDataGenerator to train dataset:

plyflow\_from\_directory ( )methodfor Train folder.



```
Defining the Parameters

[11] train_datagen=ImageDataGenerator(rescale=1./255, shear_range=0.2, rotation_range=180, zoom_range=0.2, horizontal_flip=True)
     test_datagen=ImageDataGenerator(rescale=1./255)

<keras.preprocessing.image.ImageDataGenerator at 0x7fb7448ac110>

Applying ImageDataGenerator functionality to train dataset

[10] from google.colab import drive
     drive.mount('/content/drive')

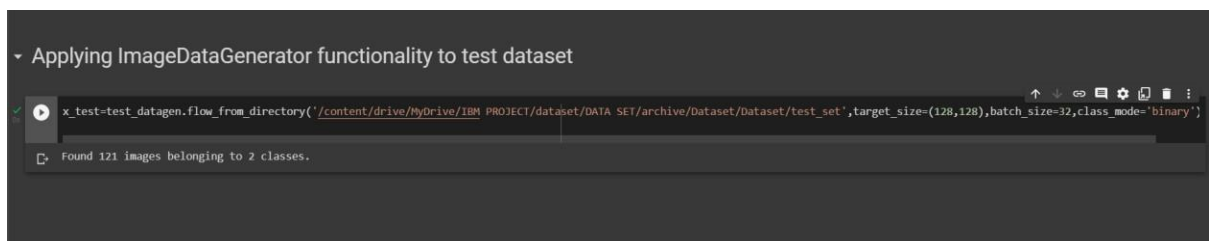
Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).

[17] x_train=train_datagen.flow_from_directory('/content/drive/MyDrive/IBM PROJECT/dataset/DATA SET/archive/Dataset/Dataset/train_set',target_size=(128,128),batch_size=32,class_mode='binary')

Found 436 images belonging to 2 classes.
```

#### APPLYING ImageDataGenerator to test dataset:

Applying the flow\_from\_directory ( ) methodfortest folder.



```
Applying ImageDataGenerator functionality to test dataset

x_test=test_datagen.flow_from_directory('/content/drive/MyDrive/IBM PROJECT/dataset/DATA SET/archive/Dataset/Dataset/test_set',target_size=(128,128),batch_size=32,class_mode='binary')

Found 121 images belonging to 2 classes.
```