FIRESEMERGING METHODS FOR EARLY DETECTION OF FIRES

Applying ImageDataGenerator Functionality ToTrainset And Testset

The ImageDataGenerator class has three methods **flow ( ), flow_from_directory ( ), and flow_from_dataframe ( )** to read the images from a big numpy array and folderscontaining images.

flow_from_directory ( ) expects at least one directory under the given directory path.

Task1: Apply **flow_from_directory ( )** method for Train folder.

```
In [ ]:
#: Applying ImageDataGenerator functionality to trainset.

x_train = train_datagen.flow_from_directory(r'./Main Project/Dataset Main/train_set',
                                            target_size = (128,128),
                                            batch_size = 32,
                                            class_mode = 'binary')
```

Task 2: Now will apply the **flow_from_directory ( )** method for test folder.

```
In [ ]:
#: Applying ImageDataGenerator functionality to testset.

x_test = test_datagen.flow_from_directory(r'./Main Project/Dataset Main/test_set',
                                          target_size = (128,128),
                                          batch_size = 32,
                                          class_mode = 'binary')
```

- The directory must be set to the path where your training folders arepresent.
- The target_size is the size of your input images, every image will beresized to this size.
- batch_size: No. of images to be yielded from the generator per batch.
- "batch_size" in both train and test generators is to some number that divides your total number of images in your train set and trainset respectively.
- class_mode: Set "binary" if you have only two classes to predict, if not set to "categorical".