EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

MODEL BUILDING

IMPORTING THE MODEL BUILDING LIBRARIES

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Team ID	PNT2022TMID30907
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Importing The ImageDataGenerator Library

import keras from keras.preprocessing.image import ImageDataGenerator

Define the parameters/arguments for ImageDataGenerator class

```
train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,rotati on_range=180,zoom_range=0.2, horizontal_flip=True)
test_datagen=ImageDataGenerator(rescale=1./255)
```

Applying ImageDataGenerator functionality to trainset

```
x_train=train_datagen.flow_from_directory(r'/content/drive/MyDriv e/Dataset/train_set',target_size=(128,128),batch_size=32,
class_mode='binary')
```

Found 436 images belonging to 2 classes.

Applying ImageDataGenerator functionality to testset

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

Found 121 images belonging to 2 classes.

Import model building libraries

```
#To define Linear initialisation import Sequential
from keras.models import Sequential #To add
layers import Dense from keras.layers import
Dense
#To create Convolution kernel import Convolution2D from
keras.layers import Convolution2D
#import Maxpooling layer
from keras.layers import MaxPooling2D
#import flatten layer from
keras.layers import Flatten
import warnings
warnings.filterwarnings('ignore')
```