# EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

## IMPORTING THE MODEL BUILDING LIBRARIES

MODEL BUILDING

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Project Name	Project-Early detection of forest fire using deep learning

### IMPORTING THE MODEL BUILDING LIBRARIES:

Import the libraries that are required to initialize the neural network layer, create and add different layers to the neural network model. The below libraries are imported and executed.

11/7/22, 12:35 AM

Untitled8.ipynb - Colaboratory

Importing Keras libraries

import keras

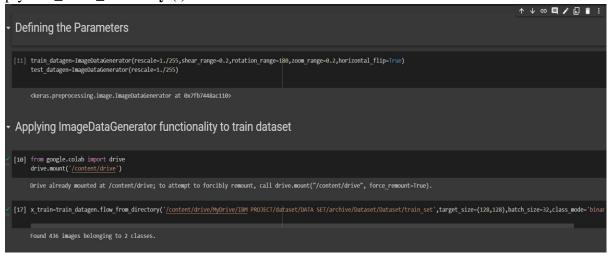
Importing ImageDataGenerator from Keras

from keras.preprocessing.image import ImageDataGenerator

*	Importing Keras libraries
✓ 33	[1] import keras
•	Importing ImageDataGenerator from Keras
✓ 0s	[13] from matplotlib import pyplot as plt from keras.preprocessing.image import ImageDataGenerator
•	Defining the Parameters
	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)
	Ckeras.preprocessing.image.ImageDataGenerator at 0x7fb7448ac110>

# APPLYING ImageDataGenerator to train dataset:

plyflow\_from\_directory ( )methodfor Train folder.



# APPLYING ImageDataGenerator to test dataset:

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



#### IMPORTING MODEL BUILDING LIBRARIES:

11/8/22, 1:16 AM Main code - Colaboratory

Importing Model Building Libraries

```
#to define the linear Initialisation import sequential
from keras.models import Sequential
#to add layers import Dense
from keras.layers import Dense
#to create Convolutional 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')
```