

EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

MODEL BUILDING

PREDICTIONS

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Utilizing our saved model to create predictions is the last and most important step. We have a class in Keras called load model for that purpose. Our model h5 file is loaded using the function load model (alert.h5).

Predictions

```
#import load_model from keras.model from keras.models import
load_model #import image class from keras
from tensorflow.keras.preprocessing import image #import numpy
import numpy as np #import cv2 import cv2

#load the saved model model =
load_model("forest1.h5")

img=image.load_img(r'/content/drive/MyDrive/Dataset/test_set/forest/
0.48007200_1530881924_final_forest.jpg') x=image.img_to_array(img) res
= cv2.resize(x, dsize=(128, 128), interpolation=cv2.INTER_CUBIC)

#expand the image shape
x=np.expand_dims(res,axis=0) pred= model.predict(x)

1/1 [=====] - 0s 149ms/step

pred
array([[0.5]], dtype=float32)
```

- † A prediction is an educated guess about potential future events based on your observations.
- † Observation, inference, and classification are all process abilities that are closely related to prediction.
- † It is anticipated that forest fire prediction would lessen the effects of forest fire in the future.
- † In the current work procedures, the fire affected zone is projected based on the satellite photos.
- † There are numerous fire detection algorithms available with various approaches towards the detection of fire.