EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

MODEL   BUILDING

PREDICTIONS

Date	06 November 2022
Team ID	PNT2022TMID 20837
Project Name	Emerging Methods for Early Detection of Forest Fires

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

```python
#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 Collection /test FIRE_301.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.