EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

MODEL BUILDING

PREDICTIONS

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Team ID	PNT2022TMID12327
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

```
#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.