# EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

**MODEL BUILDING PREDICTIONS**

|  |  |
| --- | --- |
| **Date** | 04 November 2022 |
| **Team ID** | PNT2022TMID40555 |
| **Project Name** | Emerging Methods for Early Detection of  Forest Fires |

The last and final step is to make use of our saved model to do predictions. For that we have a class in keras called load\_model. Load\_model is used to load our saved model h5 file (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 a guess about what might happen in the future, based on observations that you make.
* Predicting is closely related to other process skills such as observing, inferring, and classifying.
* Prediction of forest fire id expected to reduce the impact of forest fire in the future.
* Many fire detection algorithms are available with different approach towards the detection of fire.
* In the existing work processes the fire affected region is predicted based on the satellite images.