EMERGING METHODS FOR EARLY DETECTION OF FOREST FIRES

MODEL BUILDING

PREDICTIONS

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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.