SENDING ALERT MESSAGE

```python
#import opencv library
import cv2
#import numpy
import numpy as np
#import image and load_model function from keras
from keras.preprocessing import image
from keras.models  import load_model
#import Client from twilio API
from twilio.rest import Client
#import playsound package
from playsound import playsound

#load the saved model
model = load_model(r'forest1.h5')
#define video
video = cv2.VideoCapture(0)
#define the featues
name = ['forest','with fire']
```

```python
while(1):
    success, frame = video.read()
    cv2.imwrite("image.jpg",frame)
    img = image.load_img("image.jpg",target_size = (64,64))
    x   = image.img_to_array(img)
    x = np.expand_dims(x,axis = 0)
    pred = model.predict_classes(x)
    p = pred[0]
    print(pred)
    cv2.putText(frame, "predicted  class = "+str(name[p]), (100,100),
                cv2.FONT_HERSHEY_SIMPLEX, 1, (0,0,0), 1)
```

```python
pred = model.predict_classes(x)
if pred[0]==1:
    #twilio account ssid
    account_sid = 'ACa56253bf3f2e2918b550b1c2bfc05353'
    #twilio account authentication token
    auth_token = 'a10cb957a1b8bc17abba1e1de952d4b4'
    client = Client(account_sid, auth_token)
    message = client.messages \
    .create(
     body='Forest Fire is detected, stay alert',
    #use twilio free number
     from_=' +150351xxxx',
     to='+919160xxxx')
    print(message.sid)
    print('Fire Detected')
    print ('SMS sent!')
    playsound(r'C:\Users\DELL\Downloads\Tornado_Siren_II-Delilah-0.mp3')
```
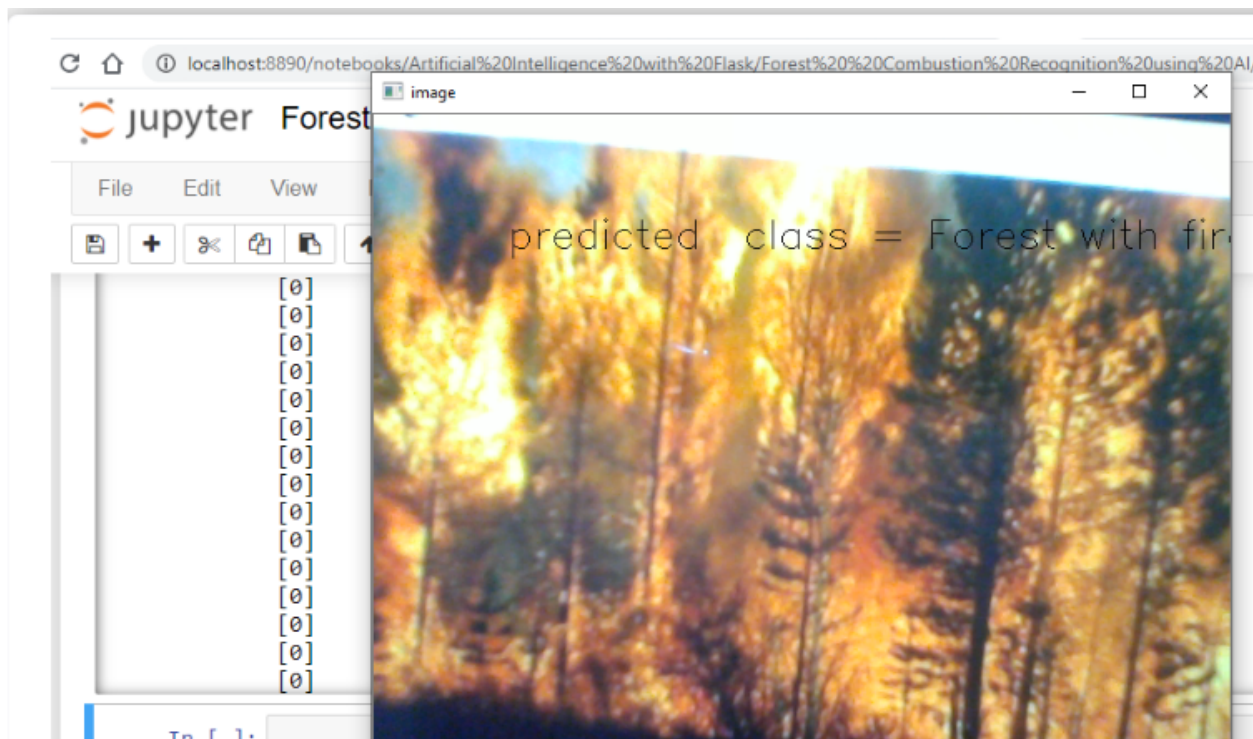
```python
    else:
        print("No Danger")
        #break
    cv2.imshow("image",frame)
    if cv2.waitKey(1) & 0xFF == ord('a'):
        break

video.release()
cv2.destroyAllWindows()
```

jupyter Forest

File   Edit   View

image   — □ ✕

predicted   class = Forest with fir

```
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
[0]
```

In [ ]:

```
[0]
no danger
[0]
no danger
[0]
no danger
[1]
SMf7d7e45c610646738a0ed86c87c9a70a
```

After running the above code, An alert sms is received if a forest fire occurs