

# IOT With Machine Learning

## TASK 4 – Monitoring with IR Sensors(using Raspberry pi and ThingSpeak)

### CODE

```
IR.py - C:\Users\chaku\Documents\Desktop\PANTECH\IR.py (3.8.5)
File Edit Format Run Options Window Help

import RPi.GPIO as IO
import time
import sys
import os
from time import sleep
import urllib.request

led = 21
IO.setmode(IO.BCM)
IO.setup(led, IO.OUT)
IO.setup(20, IO.IN)
myAPI = "05BMETPJLXN7CXEN"
myDelay = 5 #how many seconds between posting data
print('starting....')
baseURL='https://api.thingspeak.com/update?api_key=%s' % myAPI
print(baseURL)
while True:
    if(IO.input(20)==True):
        IO.output(21,True)
        print("1")
        urllib.request.urlopen(baseURL + "&field1=%s"%str("1"))
        time.sleep(1)
    else:
        IO.output(21,False)
        print("0")
        urllib.request.urlopen(baseURL + "&field1=%s"%str("0"))
        time.sleep(1)

Ln: 18 Col: 0
```

# RESULT

The screenshot displays a Google Meet interface. At the top, the browser tabs show 'Google Keep' and 'Meet - djs-hdex-cdd'. The address bar indicates the URL 'meet.google.com/djs-hdex-cdd?authuser=0'. The Meet header shows 'Dsp Cat is presenting' and lists participants: 'Aditya Kamlesh Dhab...' and '3 more'. The main video area shows a Raspberry Pi screen via VNC Viewer. The screen displays a Python 3.5.3 Shell window with a script for controlling an LED based on a sensor input. The background of the Pi screen features logos for 'NEUROSKY', 'OpenCV', 'ARM', and 'pantechsolutions.net'. The Meet sidebar on the right shows a list of participants and a chat window. The bottom of the screen shows the Meet controls, including a 'Turn on captions' button and a 'Dsp Cat is presenting' status.

Google Keep x Meet - djs-hdex-cdd x +

meet.google.com/djs-hdex-cdd?authuser=0

Apps

Dsp Cat is presenting

Aditya Kamlesh Dhab... and 3 more

11 You

Search results - dsp@pantech... x Meet - IOT-ML2 x +

192.168.0.102 (pi) - VNC Viewer

Python 3.5.3 Shell

```
#!/usr/bin/env python
import RPi.GPIO as GPIO
import time
import urllib

GPIO.setmode(GPIO.BCM)
GPIO.setup(20, GPIO.IN)
GPIO.setup(21, GPIO.OUT)

while True:
    if GPIO.input(20) == True:
        GPIO.output(21, True)
        print("1")
        urllib.request.urlopen('http://192.168.0.102:8080/1')
        time.sleep(1)
    else:
        GPIO.output(21, False)
        print("0")
        urllib.request.urlopen('http://192.168.0.102:8080/0')
        time.sleep(1)
```

NEUROSKY Brain Wave Sensors for Every Body

OpenCV

ARM

pantechsolutions.net

IOT-ML2

People (11)

Chat

Print(baseURL)

while True:

if (IO.input(20) == True):

IO.output(21, True)

print("1")

urllib.request.urlopen(baseURL

&field1=%s"%str("1"))

time.sleep(1)

else:

IO.output(21, False)

print("0")

urllib.request.urlopen(baseURL

&field1=%s"%str("0"))

time.sleep(1)

OS18CS086 Charith 6:02 PM

ri sent above

Send a message to everyone

IOT-ML2

Turn on captions

You are presenting

MK

ilamchezhan J

Dsp Cat

bemberkar sh...

Surya Reddy

Meeti...

Turn on captions

Dsp Cat is presenting

