**FINAL DELIVERABLES**

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| Date | 19 November 2022 |
| Team ID | PNT2022TMID48304 |
| Project Name | Project - IoT Based Smart Crop Protection System for Agriculture |

**CODE:**

import json

import wiotp.sdk.device

import time

import random

import ibmiotf.application

import ibmiotf.device

myConfig = {

"identity": {

"orgId": "vwcvi9",

"typeId": "ESP32",

"deviceId":"12345"

},

"auth": {

"token": "12345678"

}

}

def myCommandCallback(cmd):

print("Command received: %s" % cmd.data['command'])

status=cmd.data['command']

if status=="lighton":

print ("light is on")

elif status == "lightoff":

print ("light is off")

elif status == "motoron":

print ("motor is on")

elif status == "motoroff":

print ("motor is off")

else :

print ("please send proper command")

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)

client.connect()

while True:

soil=random.randint(0,30)

humid=random.randint(0,200)

temp=random.randint(1,100)

pir=random.randint(0,1)

myData={'SoilMoisture':soil,'Humidity':humid,'Temperature':temp,'PIRmotion':pir}

client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)

print("Published data Successfully: ", myData)

time.sleep(20)

client.commandCallback = myCommandCallback

client.disconnect()