Sprint-2

# Team ID: PNT2022TMID28861

**Project Name: IoT Based Smart Crop Protection System for Agriculture**

Python code to generate random data and pass it to IBM Watson IoT platform

# Source Code:

import time import sys

import ibmiotf.application import ibmiotf.device import random

#Provide your IBM Watson Device Credentials organization = "kd5lkd"

deviceType = "ibm" deviceId = "12345678" authMethod = "token" authToken = "87654321"

# Initialize GPIO try:

deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth- method": authMethod, "auth-token": authToken}

deviceCli = ibmiotf.device.Client(deviceOptions) #..............................................

except Exception as e:

print("Caught exception connecting device: %s" % str(e)) sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times

deviceCli.connect() while True:

temp=random.randint(0,100) Hum=random.randint(0,100) moisture=random.randint(0,100)

data = { 'temperature' : temp, 'Humidity': Hum, 'Moisture':moisture }

def myOnPublishCallback():

print ("Temperature = " + str(temp)+" C Humidity = " + str(hum)+ " moisture = " + str(moisture) + "to IBM Watson")

success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on\_publish=myOnPublishCallback)

if not success:

print("Not connected to IoTF") time.sleep(10)

deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud deviceCli.disconnect()

# Output:

