**SMART FARMERS –** **IOT ENABLED SMART FARMING APPLICATION**

**Team ID: PNT2022TMID23510**

# DEVELOPMENT OF PYTHON SCRIPT TO PUBLISH DATA TO IBM WATSON IOT PLATFORM:

**Code:**

import time import sys import ibmiotf.application import ibmiotf.device import random

#Provide your IBM Watson Device Credentials organization = "nckdv7" deviceType = "NodeMCU"

deviceId = "12345" authMethod = "token" authToken = "12345678" # 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: #Get Sensor Data from DHT11 temp=random.randint(0,100) pulse=random.randint(0,100) moisture= random.randint(0,100) humidity=random.randint(0,100); lat = 17 lon = 18 data = { 'temperature'

: temp, 'humidity' : humidity, 'Moisture' : moisture} #print

data

def myOnPublishCallback():

print ("Published Temperature = %s C" % temp, "Humidity = %s

%%" % humidity, "Soil Moisture = %s %%" % 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(1) deviceCli.commandCallback = myCommandCallback # Disconnect the device and application from the cloud deviceCli.disconnect()

**PROGRAM OUTPUT**

