FACULTY OF DATA SCIENCE & COMPUTING

REPORT IOT PROJECT

Internet-of-Things (IoT) JIT21303

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CODE

```
/*Plant watering system with new blynk update
  https://srituhobby.com
*/
//Include the library files
#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>

char auth[] = "1Xnb78nKQUpNgVUZ0hp7CjRGzXQ_kmR1";  //Enter your Auth token
char ssid[] = "Redmi Note 5";  //Enter your WIFI name
char pass[] = "adamfikri15";  //Enter your WIFI password

BlynkTimer timer;
bool Relay = 0;

//Define component pins
#define sensor A0
#define waterPump D3

void setup() {
 Serial.begin(9600);
 pinMode(waterPump, OUTPUT);
 digitalWrite(waterPump, LOW);
```

```
  Blynk.begin(auth, ssid, pass, "blynk.cloud", 80);

  //Call the function
  timer.setInterval(100L, soilMoistureSensor);
}

//Get the button value
BLYNK_WRITE(V1) {
  Relay = param.asInt();

  if (Relay == 1) {
    digitalWrite(waterPump, HIGH);
    Serial.println("Motor is OFF");
  } else {
    digitalWrite(waterPump, LOW);
    Serial.println("Motor is ON");
  }
}

//Get the soil moisture values
void soilMoistureSensor() {
  int value = analogRead(sensor);
  value = map(value, 0, 1024, 0, 100);
  value = (value - 100) * -1;

  Blynk.virtualWrite(V0, value);
```

```
  Serial.print("Moisture: ");
  Serial.print(value);
  Serial.println("%");
}

void loop() {
  Blynk.run();//Run the Blynk library
  timer.run();//Run the Blynk timer
}
```

Schematic Diagram