

## LAMPIRAN

### Codingan keseluruhan

```
#define BLYNK_PRINT Serial //Pendeclarasian Library
#define BLYNK_TEMPLATE_ID "TMPL60jxmPrtI"
#define BLYNK_TEMPLATE_NAME "Quickstart Template"
#define BLYNK_AUTH_TOKEN "SjAIj52AVrj0Qm692qYvHoXqNoGZ1Hyj"
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "POCO M4 Pro";
char pass[] = "heloworld27";
//RTC LCD
#include <Wire.h>
#include "RTClib.h"
#include <LiquidCrystal_I2C.h>
RTC_DS3231 rtc;
char daysOfTheWeek[7][12] = {"Minggu", "Senin", "Selasa", "Rabu", "Kamis",
"Jum'at", "Sabtu"};
LiquidCrystal_I2C lcd(0x27, 16,2);
//Sensor Suhu Air
#include <OneWire.h>
#include <DallasTemperature.h>
#define ONE_WIRE_BUS 0
OneWire oneWire(ONE_WIRE_BUS);
DallasTemperature sensors(&oneWire);
//Relay
#define panas 14
//Servo
#include <Servo.h>
Servo myservo;
int pos = 0;
void setup () {
  Serial.begin(9600);
  Blynk.begin(auth, ssid, pass);
  //Suhu Air
  sensors.begin();
  //Relay
  pinMode(panas, OUTPUT);
  digitalWrite(panas, LOW);
  //LCD RTC
  lcd.begin();
  lcd.backlight();
```

```

lcd.clear();
lcd.print("Inisialisasi LCD");
myservo.attach(16); // attaches the servo on pin 9 to the servo object
myservo.write(90);
delay(500);
myservo.write(0);
delay(3000);
if (! rtc.begin()) {
  Serial.println("RTC tidak terbaca");
  while (1);
}
if (rtc.lostPower()) {
  //atur waktu sesuai waktu pada komputer
  //rtc.adjust(DateTime(F(__DATE__), F(__TIME__)));
  //atur waktu secara manual
  // January 21, 2019 jam 10:30:00
  rtc.adjust(DateTime(2023, 6, 25, 8, 0, 0));
}
}

void loop () {
  Blynk.run();
  //Suhu Air
  float suhuair = sensors.getTempCByIndex(0);
  sensors.requestTemperatures();
  Serial.print("Suhu Celsius: ");
  Serial.print(suhuair);
  Serial.print(" - Suhu Fahrenheit: ");
  Serial.println(sensors.getTempFByIndex(0));
  Blynk.virtualWrite(V0, suhuair);
  //Kekeruhan
  int sensorValue = analogRead(A0);
  float voltage = sensorValue * (3.0 / 1024.0);
  Serial.print ("Sensor Output (V):");
  Serial.println (voltage);
  Blynk.virtualWrite(V1, voltage);
  //RTC
  DateTime now = rtc.now();
  Serial.print(daysOfTheWeek[now.dayOfTheWeek()]); //hari
  Serial.print(", ");
  Serial.print(now.day(), DEC); //tanggal
  Serial.print('/');
  Serial.print(now.month(), DEC); //bulan
  Serial.print('/');
  Serial.print(now.year(), DEC); //tahun
}

```

```

Serial.print(' ');
Serial.print(now.hour(), DEC); //jam
Serial.print(':');
Serial.print(now.minute(), DEC); //tanggal
Serial.print(':');
Serial.print(now.second(), DEC); //detik
Serial.println();
//Instruksi untuk Menampilkan Data RTC pada LCD
lcd.clear();
lcd.setCursor(0,0);
lcd.print("Tgl : ");
lcd.setCursor(4,0);
lcd.print(now.day(), DEC);
lcd.setCursor(6,0);
lcd.print("/");
lcd.setCursor(7,0);
lcd.print(now.month(), DEC);
lcd.setCursor(9,0);
lcd.print("/");
lcd.setCursor(10,0);
lcd.print(now.year(), DEC);
lcd.setCursor(0,1);
lcd.print("Jam : ");
lcd.setCursor(4,1);
lcd.print(now.hour(), DEC);
lcd.setCursor(6,1);
lcd.print(":");
lcd.setCursor(7,1);
lcd.print(now.minute(), DEC);
lcd.setCursor(9,1);
lcd.print(":");
lcd.setCursor(10,1);
lcd.print(now.second(), DEC);
delay(1000);
lcd.clear();
lcd.setCursor(0, 0);
lcd.print("Kekeruhan: ");
lcd.print(voltage);
lcd.setCursor(0, 1);
lcd.print("Suhu Air: ");
lcd.print(suhuair);
delay (1000);
}

```

```
BLYNK_WRITE(V3)
{
  int pinValue = param.asInt();
  Serial.print("V3 Slider value is: ");
  Serial.println(pinValue);
  if (pinValue == 1){
    digitalWrite(panas, LOW);
  }
  else{
    digitalWrite(panas, HIGH);
  }
}
BLYNK_WRITE(V2)
{
  int pinValue2 = param.asInt();
  Serial.print("V2 Slider value is: ");
  Serial.println(pinValue2);
  if (pinValue2 == 1){
    myservo.write(120);
    delay(1000);
    myservo.write(0);
  }
  else{
    myservo.write(0);
  }
}
```



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