LAMPIRAN

Listing Program:

```
#define BLYNK_TEMPLATE_ID "TMPL61uao1MWV"

#define BLYNK_TEMPLATE_NAME "kontrol ac"

#defineBLYNK_AUTH_TOKEN
"FbyFV2J8uVCPeYiRSHvNOz4OkVKNZUh9"


#include <Arduino.h>

#include <IRremoteESP8266.h>

#include <IRsend.h> //Jika protocol tidak terdeteksi

#include <ir_Panasonic.h> //Protocol Panasonic (lihat library untuk protocol
remote lain)

#include <WiFi.h>

#include <WiFiClient.h>

#include <BlynkSimpleEsp32.h>

BlynkTimer timer;

#include "DHT.h"

DHT dht(13, DHT22);

float humidity, Temperature;

unsigned long previousMillis = 0;

const long interval = 1000;

char ssid[] = "iPhone";

char pass[] = "gea210798";

char ssid[] = "Maupakaiizin";

char pass[] = "";


//Pin IRLed TX

const uint16_t kIrLed = 5; //D2 - GPIO4
```

```
int pushMode = 0;
int pushFan = 0;
int pushSwing = 0;

int togglePower = 0;
int toggleMode = 0;
int toggleFan = 0;
int toggleSwing = 0;



int temp = 16;

int notifMode,notifFan,notifSwing;

// Set the GPIO used for sending messages.
IRPanasonicAc ac(kIrLed);
IRsend irsend(kIrLed);

WidgetLED LEDM1 (V17);
WidgetLED LEDK2 (V18);
WidgetLED LEDB3 (V19);
int LEDM = 25;   //LED merah
int LEDK = 26;   //LED kuning
int LEDB = 27;   //LED hijau

void setup()
{
  ac.begin();
```

```
irsend.begin();
Blynk.begin(BLYNK_AUTH_TOKEN, ssid, pass);
Serial.begin(115200);
dht.begin();
Blynk.virtualWrite(V8, temp);
pinMode(LEDM, OUTPUT);  //Setting LED sebagai output
pinMode(LEDK, OUTPUT);
pinMode(LEDB, OUTPUT);
timer.setInterval (1000L,WidgetSUHU);

}
void gettemperature() {
  unsigned long currentMillis = millis();
  if (currentMillis - previousMillis >= interval) {
    previousMillis = currentMillis;

    humidity = dht.readHumidity();
    Temperature = dht.readTemperature();
    Blynk.virtualWrite(V1, Temperature);
    Blynk.virtualWrite(V2, humidity);

    if (isnan(humidity) || isnan(Temperature)) {
      Serial.println("Sensor Tidak Terbaca");
      return;
    }
  Serial.print("Temperature: ");
  Serial.print(Temperature);
  Serial.print("ºC ");
  Serial.print(" humidity: ");
```

```
  Serial.println( humidity);


   }
}
void loop()
{
  Blynk.run();
  gettemperature();
  timer.run();


}
void WidgetSUHU()
{
 if (Temperature <= 20){              //Jika suhu <= 20*C, maka
   digitalWrite(LEDM, LOW);
   LEDM1.off();
   digitalWrite(LEDK, LOW);
   LEDK2.off();
   digitalWrite(LEDB, HIGH);    //LED hijau menyala
   LEDB3.on();
  }
  else if (Temperature <= 25){          //Jika suhu <= 25*C, maka
   digitalWrite(LEDM, LOW);
   LEDM1.off();
   digitalWrite(LEDK, HIGH);   //LED kuning menyala
   LEDK2.on();
   digitalWrite(LEDB, LOW);
   LEDB3.off();
  }
```

```
  else if (Temperature > 25){          //Jika suhu > 25*C, maka
    digitalWrite(LEDM, HIGH);   //LED merah menyala
    LEDM1.on();
    digitalWrite(LEDK, LOW);
    LEDK2.off();
    digitalWrite(LEDB, LOW);
    LEDB3.off();
  }
  delay(1000);
}
//Widget Power Button(Switch)
BLYNK_WRITE(V0)
{
  togglePower = param.asInt();
  if(togglePower==1)
  {
    ac.on();
    ac.setSwingVertical(true);
    ac.setSwingHorizontal(false);
    ac.setTemp(temp);
    Blynk.virtualWrite(V8, temp);

    // Now send the IR signal.
    #if SEND_PANASONIC_AC
      ac.send();
    #endif
    delay(2000);
  }
  else
```

```
  {
    ac.off();

    // Now send the IR signal.
    #if SEND_PANASONIC_AC
      ac.send();
    #endif
    delay(2000);
  }

}

//Widget Button MODE(Push)
BLYNK_WRITE(V3)
{
  toggleMode = param.asInt();
  if(toggleMode == 1)
  {
    pushMode++;
    delay(200);
    if (pushMode>2)
    {
      pushMode=0;
    }
    if(pushMode==1)
    {
      notifMode=0; //Mode Auto
      //lcd.print(5, 0, "AUTO");
      //ac.setMode(0);
```

```
  }
  else if(pushMode==2)
  {
   notifMode=2; //Mode Dry
   //lcd.print(5, 0, "DRY ");
   //ac.setMode(2);
  }
  else
  {
   notifMode=3; //Mode Cool
   //lcd.print(5, 0, "COOL");
   //ac.setMode(3);
  }
  ac.setMode(notifMode);

  // Now send the IR signal.
  #if SEND_PANASONIC_AC
   ac.send();
  #endif
 }
}

//Widget Button Fan Speed(Push)
BLYNK_WRITE(V7)
{
 toggleFan = param.asInt();
 if(toggleFan == 1)
 {
  pushFan++;
```

```
delay(200);
if (pushFan>3)
{
  pushFan=0;
}
if(pushFan==1)
{
  notifFan=0; //Quiet
  //lcd.print(4, 1, "-   ");
  //ac.setFan(0);
}
else if(pushFan==2)
{
  notifFan=2; //Medium
  //lcd.print(4, 1, "--  ");
  //ac.setFan(2);
}
else if(pushFan==3)
{
  notifFan=3; //Max
  //lcd.print(4, 1, "--- ");
  //ac.setFan(3);
}
else
{
  notifFan=7; //Auto
  //lcd.print(4, 1, "AUTO");
  //ac.setFan(7);
}
```

```
    ac.setFan(notifFan);


    // Now send the IR signal.
    #if SEND_PANASONIC_AC
      ac.send();
    #endif
  }
}


//Widget Button AirSwingV(Push)
BLYNK_WRITE(V4)
{
  toggleSwing = param.asInt();
  if(toggleSwing == 1)
  {
    pushSwing++;
    delay(200);
    if (pushSwing>5)
    {
      pushSwing=0;
    }
    if(pushSwing==1)
    {
      notifSwing=1; //Highest
      //lcd.print(9,1, "Highest");
    }
    else if(pushSwing==2)
    {
      notifSwing=2; //High
```

```
  //lcd.print(9,1, "   High");
 }
 else if(pushSwing==3)
 {
  notifSwing=3; //Midle
  //lcd.print(9,1, "  Midle");
 }
 else if(pushSwing==4)
 {
  notifSwing=4; //Low
  //lcd.print(9,1, "    Low");
 }
 else if(pushSwing==5)
 {
  notifSwing=5; //Lowest
 // lcd.print(9,1, " Lowest");
 }
 else
 {
  notifSwing=15; //Auto
  //lcd.print(9,1, "  AUTO ");
 }
 ac.setSwingVertical(notifSwing);

 // Now send the IR signal.
 #if SEND_PANASONIC_AC
  ac.send();
 #endif
}
```

```
}


//Widget Button TempUp(Push)
BLYNK_WRITE(V5)
{
 int tempUp = param.asInt();
 if(tempUp==1)
 {
  temp++;
  delay(200);
  if(temp>30)
  {
   temp=30;
  }


  // Now send the IR signal.
  #if SEND_PANASONIC_AC
   ac.send();
  #endif
  Blynk.virtualWrite(V8, temp);
 }


}


//Widget Button TempDown(Push)
BLYNK_WRITE(V6)
{
 int tempDown = param.asInt();
 if(tempDown==1)
```

```
  {
   temp--;
   delay(200);
   if(temp<16)
    {
     temp=16;
    }

   // Now send the IR signal.
   #if SEND_PANASONIC_AC
     ac.send();
   #endif
   Blynk.virtualWrite(V8, temp);
  }
}
```