LAMPIRAN

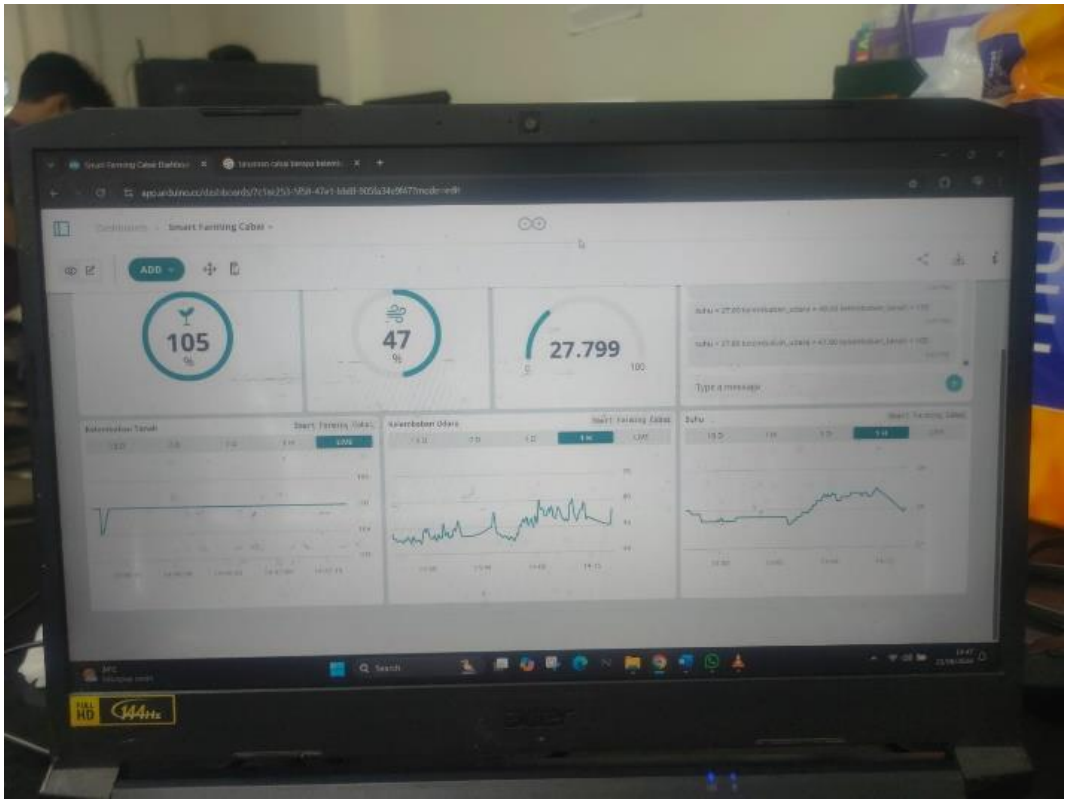
GAMBAR ALAT

L. 1 Bagian Dalam Green House

L. 2 Bagian Luar Green House

LAMPIRAN 2

TAMPILAN ARDUINO CLOUD



L. 3 Tampilan Website

LAMPIRAN 3

LISTING PROGRAM

```
#include "thingProperties.h"
#include "DHT.h"
#define relayPin D3
#define wet 0
#define dry 1023
#define DHTpin 2 // D4 on the nodemcu ESP8266
#define DHTTYPE DHT11

DHT dht(DHTpin, DHTTYPE);

void setup() {
  // Inisialisasi serial port
  Serial.begin(9600);
  // delay untuk serial monito r
  delay(1500);

  pinMode(relayPin, OUTPUT);
  digitalWrite(relayPin, HIGH);

  // Defined in thingProperties.h
  initProperties();

  // Hubungkan ke Arduino IoT Cloud
  ArduinoCloud.begin(ArduinoIoTPreferredConnection);

  /*
     The following function allows you to obtain more information
     related to the state of network and IoT Cloud connection and errors
     the higher number the more granular information you'll get.
```

```
    The default is 0 (only errors).
    Maximum is 4
  */
  setDebugMessageLevel(2);
  ArduinoCloud.printDebugInfo();
}

void loop() {
  ArduinoCloud.update();
  // Your code here
  onMsgChange();
  onKelembabanUdaraChange();
  onSuhuChange();
  onRelayChange() ;
  onKelembabanTanahChange();
}
void onMsgChange() {
  // Do something
  msg = "suhu = " + String (suhu) + "  kelembaban_udara = " +
String(kelembaban_udara) + "  kelembaban_tanah = " + String(kelembaban_tanah);
}
void onSuhuChange() {
  float temp = dht.readTemperature();
  Serial.print("suhu ");
  Serial.println(temp);
  suhu = temp;
}
/*
  Since Relay is READ_WRITE variable, onRelayChange() is
  executed every time a new value is received from IoT Cloud.
*/
void onRelayChange()  {
```

```
  if (kelembaban_tanah < 60) {
    digitalWrite(relayPin, LOW);
  }
  else if (kelembaban_tanah > 80) {
    digitalWrite(relayPin, HIGH);
  }
}
/*
  Since KelembabanUdara is READ_WRITE variable, onKelembabanUdaraChange() is
  executed every time a new value is received from IoT Cloud.
*/
void onKelembabanUdaraChange()  {
  // Add your code here to act upon KelembabanUdara change
  float hm = dht.readHumidity();
  Serial.print("kelembaban_udara ");
  Serial.println(hm);
  kelembaban_udara = hm;
}
/*
  Since KelembabanTanah is READ_WRITE variable, onKelembabanTanahChange() is
  executed every time a new value is received from IoT Cloud.
*/
void onKelembabanTanahChange()  {
  // Add your code here to act upon KelembabanTanah change
  kelembaban_tanah = analogRead(A0);
  kelembaban_tanah = map(kelembaban_tanah, 476, 1023, 100, 0);
  Serial.print("Persentase Kelembaban Tanah: ");
  Serial.print(kelembaban_tanah);
  Serial.println("%");
}
```