Lampiran 3 Source Code

Kode Program 1 *Script Perangkat Internet Of Things*

```
1.  // Library Wifi dan DHT11
2.  #include <ESP8266HTTPClient.h>
3.  #include <ESP8266WiFi.h>
4.  #include <DHT.h>

5.  const char* ssid = "Me";
6.  const char* password = "pakeajabre";

7.  #define pinMQ2 16          // D0 = GPIO16
8.  #define pinFlameSensor 5 // D1 = GPIO5
9.  #define pinLED 4           // D2 = GPIO4 (lampu LED)
10. #define pinBuzzer 0        // D3 = GPIO0 (buzzer)
11. #define DHTPIN 2          // D4 = GPIO2 (sensor suhu DHT-11)
12. #define DHTTYPE DHT11     // Tipe sensor DHT (DHT11 atau DHT22)

13. // int temp = 0;
14. // int humid = 0;

15. DHT dht(DHTPIN, DHTTYPE); // Inisialisasi sensor DHT

16. String url;
17. WiFiClient client;

18. void setup() {
19. Serial.begin(9600);
20. pinMode(pinMQ2, INPUT);
21. pinMode(pinFlameSensor, INPUT);
22. pinMode(pinLED, OUTPUT);
23. pinMode(pinBuzzer, OUTPUT);

24. // Koneksi ke WiFi
25. WiFi.hostname("NodeMCU");
26. WiFi.begin(ssid, password);

27. // Uji koneksi WiFi
28. while(WiFi.status() != WL_CONNECTED) {
29. digitalWrite(pinLED, LOW); // Matikan lampu LED jika tidak
    terhubung
30. delay(500);
```

```
31.   }

32.   // Jika terhubung ke WiFi
33.   digitalWrite(pinLED, HIGH); // Hidupkan lampu LED
34.   dht.begin(); // Mulai sensor DHT
35.   }

36.   void loop() {
37.   // baca nilai temperature
38.   int temp = dht.readTemperature();

39.   // baca nilai humadity
40.   int humid = dht.readHumidity();

41.   // baca nilai sensor asap
42.   int asap = digitalRead(pinMQ2);

43.   // Baca nilai sensor api flame
44.   int nilaiFlame = digitalRead(pinFlameSensor);

45.   // Baca nilai sensor suhu
46.   float suhu = dht.readTemperature(); // Baca suhu dalam derajat
      Celsius

47.   if (nilaiFlame == 1) {
48.   Serial.println("Deteksi Bahaya Api!\nTemp :");
49.   digitalWrite(pinBuzzer, HIGH); // Hidupkan buzzer
50.   kirim_wa("Bahaya!!!\nDeteksi Bahaya API.\nSegera Ambil
      Tindakan!\n\nTemp : " + String(temp) + "\nHumidity : "+
      String(humid));
51.   } else if (suhu >= 35.0) {
52.   Serial.println("Suhu Tinggi!");
53.   digitalWrite(pinBuzzer, HIGH); // Hidupkan buzzer
54.   kirim_wa("Bahaya!!!\nSuhu Ruang Server Tinggi.\nSegera Ambil
      Tindakan!\n\nTemp : " + String(temp) + "\nHumidity : " +
      String(humid));
55.   } else if (asap == 1) {
56.   Serial.println("Deteksi Bahaya Asap dan Gas!");
57.   digitalWrite(pinBuzzer, HIGH); // Hidupkan buzzer
58.   kirim_wa("Bahaya!!!\nDeteksi Bahaya Asap dan Gas.\nSegera
      Ambil Tindakan!\n\nTemp : " + String(temp) + "\nHumidity : "+
      String(humid));
59.   } else {
```

```
60.   Serial.println("Tidak Ada Bahaya");
61.   Serial.println("Temp : " + String(temp));
62.   Serial.println("Humadity : " + String(humid));
63.   digitalWrite(pinBuzzer, LOW); // Matikan buzzer
64.   }

65.   delay(1000);
66.   }

67.   void kirim_wa(String pesan) {
68.   url =
      "http://api.callmebot.com/whatsapp.php?phone=6285890928193&tex
      t="+ urlencode(pesan) +"&apikey=6469859";
69.   postData();
70.   }

71.   void postData() {
72.   int httpCode;
73.   HTTPClient http;
74.   http.begin(client, url);
75.   httpCode = http.POST(url);
76.   if(httpCode == 200) {
77.   Serial.println("Notifikasi WhatsApp Berhasil Terkirim");
78.   } else {
79.   Serial.println("Notifikasi WhatsApp Gagal Terkirim");
80.   }
81.   http.end();
82.   }

83.   String urlencode(String str) {
84.   String encodedString = "";
85.   char c;
86.   char code0, code1, code2;
87.   for(int i=0; i < str.length(); i++) {
88.   c = str.charAt(i);
89.   if(c == ' ') {
90.   encodedString += '+' ;
91.   } else if(isalnum(c)) {
92.   encodedString += c ;
93.   } else {
94.   code1 = (c & 0xf) + '0';
95.   if((c & 0xf) > 9 ) {
         a. code1 = (c & 0xf) - 10 + 'A' ;
```

```
96.    }
97.    c = (c >> 4) & 0xf;
98.    code0 = c + '0';
99.    if(c > 9) {
          a. code0 = c - 10 + 'A';
100.   }
101.   code2 = '\0';
102.   encodedString += '%';
103.   encodedString += code0;
104.   encodedString += code1;
105.   }
106.   yield();
107.   }
108.   Serial.println(encodedString);
109.   return encodedString;
110.   }
```

Kode Program 2 *Script Koneksi Database InfluxDB*

```
#include <ESP8266WiFiMulti.h>
ESP8266WiFiMulti wifiMulti;
#include <InfluxDbClient.h>
#include <InfluxDbCloud.h>

#define INFLUXDB_URL "https://us-east-1-1.aws.cloud2.influxdata.com"
#define INFLUXDB_TOKEN "9-ulgu9AeVbJFVmJy5e7aseuxkch7MQIauHAK1eL7vbsyDqavxU2SLUwUpVxy1PtuPRIOa0fmDQ4Ar950WnEoQ=="
#define INFLUXDB_ORG "21de346e868c7f3e"
#define INFLUXDB_BUCKET "skripsiiotrizkhi"

// Time zone info
#define TZ_INFO "UTC7"

InfluxDBClient client(INFLUXDB_URL, INFLUXDB_ORG, INFLUXDB_BUCKET, INFLUXDB_TOKEN, InfluxDbCloud2CACert);

String url;
WiFiClient wificlient;

// Data Point Sensor
Point sensor("Deteksi Kebakaran");

void setup() {
timeSync(TZ_INFO, "pool.ntp.org", "time.nis.gov");

// Cek Koneksi Server InfluxDB
if (client.validateConnection()) {
Serial.print("Connected to InfluxDB: ");
Serial.println(client.getServerUrl());
} else {
Serial.print("InfluxDB connection failed: ");
Serial.println(client.getLastErrorMessage());
}
}

}

void loop() {
```

```
29.   sensor.addField("temperature",
      temp);                                  // Store measured value
      into point
30.   sensor.addField("humidity",
      humid);                                   // Store measured value
      into point
31.   sensor.addField("smoke",
      asap);                                      // Store measured
      value into point
32.   sensor.addField("api",
      nilaiFlame);                                  // Store measured
      value into point
33.   sensor.addField("suhu",
      suhu);                                    // Store measured value
      into point

34.   if (!client.writePoint(sensor)) {
35.   Serial.print("InfluxDB write failed: ");
36.   Serial.println(client.getLastErrorMessage());
37.   }

38.   }
```

Kode Program 3 *Script Interface Website Monitoring Internet Of Things*

```
1.  <!DOCTYPE html>
2.  <html lang="en">
3.  <head>
4.  <meta charset="utf-8" />
5.  <meta name="viewport" content="width=device-width, initial-
    scale=1" />
6.  <title>IoT Skripsi Deteksi Kebakaran</title>


7.  <!-- Bootstrap -->
8.  <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bo
    otstrap.min.css" rel="stylesheet" integrity="sha384-
    QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhjY6hW+ALEw
    IH" crossorigin="anonymous" />


9.  <!-- CSS -->
10. <link rel="stylesheet" href="style.css" />


11. <!-- Icons -->
12. <link
    href="https://unpkg.com/boxicons@2.1.1/css/boxicons.min.css"
    rel="stylesheet" />


13. <!-- Font Google -->
14. <style>
15. @import
    url("https://fonts.googleapis.com/css2?family=Poppins:ital,wgh
    t@0,100;0,200;0,300;0,400;0,500;0,600;0,700;0,800;0,900;1,100;
    1,200;1,300;1,400;1,500;1,600;1,700;1,800;1,900&display=swap")
    ;
16. </style>
17. </head>
18. <body style="font-family: 'Poppins'">
19. <!-- Navbar -->
20. <nav class="navbar navbar-expand-lg shadow fixed-top"
    style="background-color: #fff">
21. <div class="container">
22. <a class="navbar-brand" href="#grafana">IoT - Skripsi Deteksi
    Kebakaran</a>
23. <button class="navbar-toggler" type="button" data-bs-
    toggle="collapse" data-bs-target="#navbarSupportedContent"
```

```
      aria-controls="navbarSupportedContent" aria-expanded="false"
      aria-label="Toggle navigation">
24.   <span class="navbar-toggler-icon"></span>
25.   </button>
26.   <div class="collapse navbar-collapse"
      id="navbarSupportedContent">
27.   <ul class="navbar-nav ms-auto">
28.   <li class="nav-item" style="margin-right: 5%">
29.   <a class="nav-link" href="#grafana">Home</a>
30.   </li>
31.   <li class="nav-item" style="margin-right: 5%">
32.   <a class="nav-link" href="#grafana">Sensor</a>
33.   </li>
34.   <li class="nav-item" style="margin-right: 5%">
35.   <a class="nav-link" href="#monitoring">Monitoring</a>
36.   </li>
37.   <li class="nav-item" style="margin-right: 5%">
38.   <a class="nav-link" href="#cctv">CCTV</a>
39.   </li>
40.   <li class="nav-item">
41.   <a class="btn-logout nav-link" href="logout.php">Logout</a>
42.   </li>
43.   </ul>
44.   </div>
45.   </div>
46.   </nav>


47.   <!-- Sensor -->
48.   <section class="grafana" id="grafana">
49.   <div class="container">
50.   <div class="row text-center">
51.   <div class="col">
52.   <h2 class="text-grafana">Sensor</h2>
53.   </div>
54.   </div>
55.   </div>
56.   <div class="row">
57.   <div class="col-md-4">
58.   <div class="card" style="margin-bottom: 4%">
59.   <iframe src="http://202.10.36.242:3000/d-
      solo/adon7nqraultsa/new-
      dashboard?orgId=1&refresh=5s&from=1718267112560&to=17182887125
      60&panelId=1" height="300" frameborder="0"></iframe>
60.   <div class="card-body">
61.   <h5 class="card-title">Api</h5>
62.   </div>
63.   </div>
64.   </div>
65.   <div class="col-md-4">
```

```
66.   <div class="card" style="margin-bottom: 4%">
67.   <iframe src="http://202.10.36.242:3000/d-
      solo/adon7nqraultsa/new-
      dashboard?orgId=1&refresh=5s&from=1718267143532&to=17182887435
      32&panelId=2" height="300" frameborder="0"></iframe>
68.   <div class="card-body">
69.   <h5 class="card-title">Asap</h5>
70.   </div>
71.   </div>
72.   </div>
73.   <div class="col-md-4">
74.   <div class="card" style="margin-bottom: 4%">
75.   <iframe src="http://202.10.36.242:3000/d-
      solo/adon7nqraultsa/new-
      dashboard?orgId=1&refresh=5s&from=1718267165931&to=17182887659
      31&panelId=3" height="300" frameborder="0"></iframe>
76.   <div class="card-body">
77.   <h5 class="card-title">Suhu</h5>
78.   </div>
79.   </div>
80.   </div>
81.   <div class="col-md-6">
82.   <div class="card" style="margin-bottom: 4%">
83.   <iframe src="http://202.10.36.242:3000/d-
      solo/adon7nqraultsa/new-
      dashboard?orgId=1&refresh=5s&from=1718267187653&to=17182887876
      53&panelId=5" height="300" frameborder="0"></iframe>
84.   <div class="card-body">
85.   <h5 class="card-title">Temperature</h5>
86.   </div>
87.   </div>
88.   </div>
89.   <div class="col-md-6">
90.   <div class="card" style="margin-bottom: 4%">
91.   <iframe src="http://202.10.36.242:3000/d-
      solo/adon7nqraultsa/new-
      dashboard?orgId=1&refresh=5s&from=1718267234359&to=17182888343
      59&panelId=6" height="300" frameborder="0"></iframe>
92.   <div class="card-body">
93.   <h5 class="card-title">Humidity</h5>
94.   </div>
95.   </div>
96.   </div>
97.   </section>


98.   <!-- Monitoring -->
99.   <section class="monitoring" id="monitoring">
100.  <div class="container">
101.  <div class="row text-center">
```

```
102.    <div class="col">
103.    <h2 class="text-grafana">Monitoring</h2>
104.    </div>
105.    </div>
106.    </div>
107.    <div class="row">
108.    <div class="col-12">
109.    <div class="card bg-dark text-white">
110.    <iframe src="http://202.10.36.242:3000/d-
        solo/adon7nqraultsa/new-
        dashboard?orgId=1&refresh=5s&from=1718267271672&to=17182888716
        72&panelId=7" height="400" frameborder="0"></iframe>
111.    <div class="card-img-overlay">
112.    <h5 class="card-title">Temperature</h5>
113.    </div>
114.    </div>
115.    </div>
116.    <div class="col-12">
117.    <div class="card bg-dark text-white" style="margin-top: 2%">
118.    <iframe src="http://202.10.36.242:3000/d-
        solo/adon7nqraultsa/new-
        dashboard?orgId=1&refresh=5s&from=1718267289836&to=17182888898
        36&panelId=8" height="400" frameborder="0"></iframe>
119.    <div class="card-img-overlay">
120.    <h5 class="card-title">Humidity</h5>
121.    </div>
122.    </div>
123.    </div>
124.    </div>
125.    </div>
126.    </section>


127.    <div class="row monitoring">
128.    <iframe src="http://202.10.36.242:3000/d-
        solo/adon7nqraultsa/new-
        dashboard?orgId=1&refresh=5s&from=1718267310300&to=17182889103
        00&panelId=4" height="400" frameborder="0"></iframe>
129.    </div>


130.    <!-- CCTV -->
131.    <section class="cctv" id="cctv">
132.    <div class="container">
133.    <div class="row text-center">
134.    <div class="col">
135.    <h2 class="text-grafana">CCTV</h2>
136.    </div>
137.    </div>
```

```
138.    </div>
139.    <div class="row">
140.    <iframe
        src="https://player.castr.com/live_9738b440254d11efa2c641bd7be
        fe8f2" width="100%" height="400" style="aspect-ratio: 16/9;
        min-height: 340px;" frameborder="0" scrolling="no"
        allow="autoplay" allowfullscreen webkitallowfullscreen
        mozallowfullscreen oallowfullscreen
        msallowfullscreen></iframe>
141.    </div>
142.    </section>


143.    <!-- Footer -->
144.    <footer class="footer">
145.    <p class="footer__title">Muhammad Rizkhi</p>


146.    <div class="footer__social">
147.    <a href="https://www.linkedin.com/in/muhammad-rizkhi-
        6748ab20a/" class="footer__icon"><i class="bx bxl-linkedin-
        square"></i></a>
148.    <a href="https://www.instagram.com/mdrizkhi/"
        class="footer__icon"><i class="bx bxl-instagram"></i></a>
149.    <a href="https://github.com/MuhammadRizkhi"
        class="footer__icon"><i class="bx bxl-github"></i></a>
150.    </div>


151.    <p>&#169; 2024 Skripsi IoT Muhammad Rizkhi Copyright</p>
152.    </footer>


153.    <script
        src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/boot
        strap.bundle.min.js" integrity="sha384-
        YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jIe
        Hz" crossorigin="anonymous"></script>
154.    </body>
155.    </html>
```

156. Kode Program 4 *Script Koneksi Database PHP dan MySQL*

```
157.    <?php


158.    $server = "localhost";
```

```
159.    $user = "skrt9985_loginskripsiiot";
160.    $pass = "avalator123";
161.    $database = "skrt9985_loginskripsiiot";


162.    $conn = mysqli_connect($server, $user, $pass, $database);


163.    if (!$conn) {
164.    die("<script>alert('Connection Failed.')</script>");
165.    }


166.    ?>
```