

## DAFTAR GAMBAR

|                                                                                           |    |
|-------------------------------------------------------------------------------------------|----|
| Gambar 2. 1 Gambar Node-RED.....                                                          | 7  |
| Gambar 2. 2 NodeMCU ESP8266 .....                                                         | 8  |
| Gambar 2. 3 Arduino Uno .....                                                             | 8  |
| Gambar 2. 4 Sensor DHT 11 .....                                                           | 9  |
| <br>                                                                                      |    |
| Gambar 3. 1 Blok Diagram Sistem Penyiraman Otomatis Menggunakan Nodered Berbasis IoT..... | 11 |
| Gambar 3. 2 Skematik Hardware .....                                                       | 12 |
| Gambar 3. 3 Diagram Perancangan Hardware .....                                            | 12 |
| Gambar 3. 4 NodeMCU ESP8266 .....                                                         | 13 |
| Gambar 3. 5 Spesifikasi NodeMCU ESP8266 .....                                             | 13 |
| Gambar 3. 6 Soil Moisture.....                                                            | 14 |
| Gambar 3. 7 Sensor DHT11 .....                                                            | 14 |
| Gambar 3. 8 DHT1 .....                                                                    | 15 |
| Gambar 3. 9 Mosfet .....                                                                  | 16 |
| Gambar 3. 10 <i>Diagram Perancangan Software</i> .....                                    | 17 |
| Gambar 3. 11 Node-RED .....                                                               | 18 |
| Gambar 3. 12 Flowchart Sistem Nodered.....                                                | 18 |
| Gambar 3. 13 Logo Arduino .....                                                           | 19 |
| Gambar 3. 14 <i>Diagram Sistem Penyiraman Otomatis</i> .....                              | 20 |
| <br>                                                                                      |    |
| Gambar 4. 1 Alat Penyiraman Otomatis.....                                                 | 22 |
| Gambar 4. 2 Grafik Perbandingan DHT 11 Temperatur dan Termometer Ruang.....               | 23 |
| Gambar 4. 3 Grafik Perbandingan DHT 11 Humidity dan Humidity Meter.....                   | 25 |
| Gambar 4. 4 Hasil Monitoring Nodered.....                                                 | 27 |