

## DAFTAR GAMBAR

|  |    |
|--|----|
| Gambar 2. 1 Blok diagram Internet of Things.....                     | 5  |
| Gambar 2. 2 Sensor pH tanah.....                                     | 8  |
| Gambar 2. 3 Sensor YL-69.....  | 8  |
| Gambar 2. 4 LCD 20x4 I2C .....                                       | 9  |
| Gambar 2. 5 Sensor DS18B20.....                                      | 10 |
| Gambar 2. 6 Relay .....  | 10 |
| Gambar 2. 7 ESP32 .....  | 11 |
| Gambar 2. 8 BlynkApp.....  | 12 |
| Gambar 2. 9 Telegram .....   | 12 |
| Gambar 2. 10 Software Arduino IDE.....                               | 13 |
| Gambar 3. 1 Blok Diagram System.....                                 | 14 |
| Gambar 3. 2 Blok Diagram keseluruhan System .....                    | 15 |
| Gambar 3. 4 Flowchart System pendeteksi kelembapan dan pH tanah..... | 16 |
| Gambar 3. 5 Konfigurasi wiring pada perangkat .....                  | 17 |
| Gambar 3. 9 expansion ESP32 .....                                    | 20 |
| Gambar 4. 1 Hasil pengiriman data melalui Telegram.....              | 25 |
| Gambar 4. 2 Penjelasan fungsi command pada Telegram.....             | 25 |