

DAFTAR PUSTAKA

- [1] I. Citaristi, “Specialized agencies and related organizations within the un system: Food and agriculture organization of the united nations—fao,” in *The Europa Directory of International Organizations 2022*, Routledge, 2022, pp. 307–315.
- [2] G. Lages Barbosa *et al.*, “Comparison of land, water, and energy requirements of lettuce grown using hydroponic vs. conventional agricultural methods,” *Int. J. Environ. Res. Public Health*, vol. 12, no. 6, pp. 6879–6891, 2015.
- [3] L. I. Trejo-Téllez and F. C. Gómez-Merino, “Nutrient solutions for hydroponic systems,” *Hydroponics-a Stand. Methodol. plant Biol. Res.*, vol. 1, pp. 1–22, 2012.
- [4] S. Wolfert, L. Ge, C. Verdouw, and M.-J. Bogaardt, “Big data in smart farming—a review,” *Agric. Syst.*, vol. 153, pp. 69–80, 2017.
- [5] G. J. Mardolina, “Rancang Bangun Smart Hydroponic Menggunakan ESP32 Berbasis Aplikasi Android,” 2023, *Universitas Hasanuddin*.
- [6] A. E. Pratama and M. Hurairah, “Otomasi Sistem Hidroponik Berbasis Mikrokontroler ESP32,” *J. Surya Energy*, vol. 9, no. 1, pp. 1–7, 2024.
- [7] R. Rivana, “Sistem monitoring nutrisi dan pH air pada tanaman hidroponik berbasis Internet of Things (IoT),” 2023, *Politeknik Caltex Riau*.
- [8] I. S. Roidah, “Pemanfaatan lahan dengan menggunakan sistem hidroponik,” *J. bonorowo*, vol. 1, no. 2, pp. 43–49, 2014.
- [9] H. Mubarak, M. Rizal, I. Iqbal, A. Waris, M. T. Sapsal, and I. Suelfikhar, “Design of a Greenhouse Room Temperature and Humidity Control System Using a DHT 22 Sensor,” *J. Agritechno*, pp. 160–165, 2022.
- [10] A. Zuhair, E. N. Sholihah, A. Fahmi, Y. Anggraini, and B. Herwono, “Perancangan sistem monitoring suhu dan kelembaban pada sistem aeroponik berbasis Internet of Things,” *J. Rekayasa Energi*, vol. 1, no. 1, pp. 30–35, 2022.
- [11] M. R. E. Prasetyoaji and L. Anifah, “Design of Smart Hydroponics Based on Internet of Things (IoT) Using Rule-Based System on Hydroponic Wick System,” *J. FORTEI-JEERI*, vol. 6, no. 1, pp. 51–62, 2025.
- [12] E. Systems, “ESP32 Series Datasheet,” 2023. [Online]. Available: https://www.espressif.com/sites/default/files/documentation/esp32_datasheet_en.pdf
- [13] L. Aosong Electronics Co., “AM2302 (DHT22) Digital Temperature & Humidity Sensor Datasheet,” 2023. [Online]. Available: <https://www.aosong.com/en/products-21.html>
- [14] DFRobot, “Gravity: Analog TDS Sensor/Meter for Arduino (SKU: SEN0244),” 2024.

- [15] DFRobot, “Gravity: Analog pH Sensor Meter Kit V2 (SKU: SEN0161-V2),” 2024.
- [16] I. Analog Devices, “DS3231 Extremely Accurate I²C-Integrated RTC/TCXO/Crystal,” 2023.
- [17] A. R. Hutaurok, “Kendali Otomatis Tingkat Ketinggian Air Dan Nutrisi Pada Hidroponik Menggunakan Metode Finite State Machine,” *J. Inform. dan Tek. Elektro Terap.*, vol. 13, no. 1, 2025.
- [18] P. Serikul, N. Nakpong, and N. Nakjuatong, “Smart farm monitoring via the Blynk IoT platform: case study: humidity monitoring and data recording,” in *2018 16th International conference on ICT and knowledge engineering (ICT&KE)*, IEEE, 2018, pp. 1–6.
- [19] T. Juwariyah, L. Krisnawati, and S. Sulasminingsih, “Perancangan sistem monitoring terpadu Smart Bins berbasis IoT menggunakan aplikasi Blynk,” *J. Inform. dan Rekayasa Elektron.*, vol. 3, no. 2, pp. 91–99, 2020.
- [20] A. A. Sneineh and A. A. A. Shabaneh, “Design of a smart hydroponics monitoring system using an ESP32 microcontroller and the Internet of Things,” *MethodsX*, vol. 11, p. 102401, 2023.