

DAFTAR PUSTAKA

- [1] A. Agus dan T. S. M. Widi, "Current situation and future prospects for beef cattle production in Indonesia - A review," *Asian-Australasian J. Anim. Sci.*, vol. 31, no. 7, hal. 976–983, 2018, doi: 10.5713/ajas.18.0233.
- [2] H. J. C. Frans, F. U. Datta, Y. T. R. M. R. Simarmata, dan U. N. Cendana, "Deskripsi Parameter Fisiologis Normal Ternak Sapi Bali (*Bos Sondaicus*) di Desa Pukdale Kecamatan Kupang Timur Kabupaten Kupang," vol. 3, no. 2.
- [3] C. R. Foot, B. I. Province, dan I. Wulandani, "Case Report : Penyakit Mulut dan Kuku (PMK) pada Ternak Sapi Potong di Kabupaten Bangka Tengah , Provinsi Kepulauan Bangka Belitung," vol. 4, no. 2, hal. 66–74, 2022.
- [4] M. C. M. Parlato, F. Valenti, dan S. M. C. Porto, "GIS-based methodology for tracking the grazing cattle site use," *Heliyon*, vol. 10, no. 13, hal. e33166, 2024, doi: 10.1016/j.heliyon.2024.e33166.
- [5] I. Akuntansi, U. T. Indonesia, J. Za, dan P. Alam, "Sistem Monitoring dan Manajemen Pakan Pakan Ternak Sapi Berbasis Web Pada PT XYZ Lampung Tengah," vol. 15, no. 1, hal. 151–166, 2025.
- [6] Kompas.com, "4 Ekor Sapi Hilang dalam Semalam, Waspada Pencurian Ternak di Tasikmalaya," 2025. [Daring]. Tersedia pada: <https://bandung.kompas.com/read/2025/11/26/171045078/4-ekor-sapi-hilang-dalam-semalam-waspada-pencurian-ternak-di-tasikmalaya>
- [7] Ahmad Viqi and detikBali, "Polisi Tangkap 5 Komplotan Pencuri Sapi di Lombok Utara, Satu Orang Pelajar," 2025. [Daring]. Tersedia pada: <https://www.detik.com/bali/hukum-dan-kriminal/d-7826610/polisi-tangkap-5-komplotan-pencuri-sapi-di-lombok-utara-satu-orang-pelajar>
- [8] R. W. Bello, R. O. Ogundokun, P. A. Owolawi, E. A. van Wyk, dan C. Tu, "Application of Convolutional Neural Networks in Animal Husbandry: A Review," *Mathematics*, vol. 13, no. 12, hal. 1–24, 2025, doi:

10.3390/math13121906.

- [9] Admin Satker, “Kerugian Akibat Wabah PMK Nyaris Sentuh Rp9 Triliun,” 2025. [Daring]. Tersedia pada: <https://bvetsubang.ditjenpkh.pertanian.go.id/berita/kerugian-akibat-wabah-pmk-nyaris-sentuh-rp9-triliun>
- [10] Anonymous, “Produksi Daging Sapi menurut Provinsi (Ton), 2024,” Badan Pusat Statistik. Diakses: 22 September 2025. [Daring]. Tersedia pada: <https://www.bps.go.id/id/statistics-table/2/NDgwIzI=/produksi-daging-sapi-menurut-provinsi.html>
- [11] E. S. Rohaeni *et al.*, “Developing a Sustainable Beef Cattle Business Model for Smallholder Farms in South Kalimantan’s Drylands,” *Int. J. Sustain. Dev. Plan.*, vol. 19, no. 2, hal. 481–500, 2024, doi: 10.18280/ijstdp.190207.
- [12] R. Angriawan dan N. Anugraha, “Sistem Pelacak Lokasi Sapi dengan Sistem Komunikasi LoRa,” *Inspir. J. Teknol. Inf. dan Komun.*, vol. 9, no. 1, hal. 33, 2019, doi: 10.35585/inspir.v9i1.2494.
- [13] A. N. Manikanta, A. F. Baba, D. S. Vyshnavi, D. K. Paul, dan S. S. Sreedhar P, “Cloud IoT Based Surveillance System for Tracking and Monitoring of Domestic Animals,” in *2024 International Conference on Integrated Circuits and Communication Systems (ICICACS)*, 2024, hal. 1–5. doi: 10.1109/ICICACS60521.2024.10498549.
- [14] D. Kaur dan A. K. Virk, “Smart neck collar: IoT-based disease detection and health monitoring for dairy cows,” *Discov. Internet Things*, vol. 5, no. 1, 2025, doi: 10.1007/s43926-025-00109-5.
- [15] F. Pertanian dan U. Mulawarman, “Dampak perubahan iklim terhadap produktivitas ternak dan strategi adaptasi peternak,” vol. 02, hal. 25–30, 2025.
- [16] B. Blond *et al.*, “Influence of Heat Stress on Body Surface Temperature and Blood Metabolic, Endocrine, and Inflammatory Parameters and Their

Correlation in Cows.,” *Metabolites*, vol. 14, no. 2, Feb 2024, doi: 10.3390/metabo14020104.

- [17] A. Calcante dan F. M. Tangorra, “Measuring oxygen saturation and pulse rate in dairy cows before and after machine milking using a low-cost pulse oximeter,” *J. Agric. Eng.*, vol. 52, Mei 2021, doi: 10.4081/jae.2021.1155.
- [18] Maxim Integrated Inc., “Sensor Ds18B20,” *Maxim Integr. Prod.*, vol. 92, no. 1 (35), hal. 1–20, 2019.
- [19] T. Liu, “Digital-output relative humidity & temperature sensor/module DHT22,” *New York Aosong Electron.*, vol. 22, hal. 1–10, 2015.
- [20] T. High, C. Pwm, T. Mlx, T. Comfort, dan M. A. Conditioning, *MLX90614KSF-ACC-000-TU*.
- [21] Analog Devices, “MAX30102 - High-Sensitivity Pulse Oximeter and Heart-Rate Sensor for Wearable Health,” *Maxim Integr.*, hal. 1–32, 2015.
- [22] J. Murphy dan Y. Gitman, “PulseSensor Datasheet,” hal. 1–13, 2025.
- [23] Analog Devices, “AD8232 Single-Lead ECG,” *Data Sheet*, hal. 1–28, 2013.
- [24] A. Babalola, A. D. Babalola, dan & Ubochi, “The Performance of the STM32 Microcontroller and MAX30102 for Remote Health Monitoring Device Design,” *J. Digit. Innov. Contemp. Res. Sci. Eng. Technol.*, vol. 10, no. 3, hal. 51–68, 2022, doi: 10.22624/AIMS/DIGITAL/V10N1P4.
- [25] U-blox, “NEO-6 u-blox 6 GPS Modules,” *Www.U-Blox.Com*, hal. 25, 2017.
- [26] U-Blox, “u-blox M8 concurrent GNSS modules,” *Data Sheet*, hal. 29, 2022.
- [27] P. Overview, “Grove-GPS (Air530) 109020022,” 2022.
- [28] G. Jayandhi, K. Niranjini, K. Revathi, S. J. Peter, dan S. Tejaswini, “Design of Medical Drone Using Neo-6M Gps With Arduino Uno,” *Int. Res. J. Eng. Technol.*, hal. 98–103, 2020.

- [29] Semtech Corporation, "SX1276/77/78/79 - 137 MHz to 1020 MHz Low Power Long Range Transceiver," *Data Sheet - SX1276/77/78/79*, vol. 5, no. August, hal. 1–133, 2016.
- [30] A. T. Guide dan R. Notes, "Esp32 Wifi Module," 2017.
- [31] K. Features, "Single Chip 2 . 4GHz Transceiver Product Specification," *ReVision*, no. July, 2007.
- [32] F. Cortes, R. Carvalho, dan L. M. Pires, "Vehicle to Vehicle Communication with LoRa network Vehicle to Vehicle Communication with LoRa network," 2024, doi: 10.20944/preprints202405.1291.v1.
- [33] M. Information, "Li-ion Polymer 500mAh Battery Datasheet," no. July 2022, hal. 1–11.
- [34] TinyCircuits, "Lithium-ion Polymer 1000mAh Battery Datasheet Distributed by TinyCircuits," *Mouser*, no. July 2022, hal. 1–13, 2022.
- [35] L. M. On, "3 . 7V Lithium Polymer Battery Data Sheet," *3.7V Lithium Polym. Batter. Datasheet*, hal. 6–8.
- [36] AA Portable Power Corp., "Specification Cylindrical Li-ion 18650 2600 mAh Rechargeable cell," *AA Portable Power Corp.*, 2005.

