



DAFTAR PUSTAKA

- [1] E. Parikesit, D. Purwadianto, and F. R. Sambada, "Pelacak matahari dua sumbu menggunakan ldr untuk meningkatkan absorpsi matahari," *MediaTeknika*, vol. 12, no. 2, pp. 80–90, 2017.
- [2] J. Asmi and O. Candra, "Prototype solar tracker dua sumbu berbasis microcontroller arduino nano dengan sensor ldr," *JTEV (Jurnal Teknik Elektro Dan Vokasional)*, vol. 6, no. 2, pp. 54–63, 2020.
- [3] B. A. Saputra, A. Ma'arif *et al.*, "Prototipe solar tracking berbasis arduino dan sensor light dependent resistor (ldr)," *Buletin Ilmiah Sarjana Teknik Elektro*, vol. 4, no. 1, pp. 30–40, 2022.
- [4] D. R. Pramesrani, "Perancangan solar tracker dua sumbu berbasis optoelectrical tracking menggunakan kontroler hybrid fuzzy-genetic algorithm," Ph.D. dissertation, Institut Teknologi Sepuluh Nopember, 2018.
- [5] A. H. Tamari and A. Amirullah, "Kombinasi sistem solar tracker dua sumbu dan automatic transfer switch (ats) untuk menstabilkan tegangan keluaran pembangkit photovoltaic (pv) menggunakan sensor photodiode dan arduino nano," *Rekayasa*, vol. 15, no. 2, pp. 164–174, 2022.
- [6] I. Ahmad, N. Nadhiroh *et al.*, "Analisis akurasi sensor untuk optimasi sistem kontrol penggerak reflektor otomatis pada plts," in *Seminar Nasional Teknik Elektro*, vol. 10, no. 1, 2024, pp. 222–228.
- [7] H. A. Kusuma, H. Saputra, M. Muhazri, and T. K. Sandi, "Analisis perbandingan performa sensor light dependent resistor (ldr) pada ukuran 5mm dan 10mm dalam pengukuran intensitas cahaya," in *Seminar Nasional Teknik Elektro*, 2023.
- [8] S. Manik, A. M. Muslimin, A. A. Subgan *et al.*, "Perancangan alat ukur intensitas cahaya berbasis arduino leonardo menggunakan sensor ldr (light dependent resistor)," *Jurnal Natural*, vol. 16, no. 1, pp. 1–13, 2020.
- [9] V. A. Suoth, H. I. Mosey, and R. C. Telleng, "Rancang bangun alat pendeteksi intensitas cahaya berbasis sensor light dependent resistance (ldr)," *Jurnal Mipa*, vol. 7, no. 1, pp. 47–51, 2018.
- [10] M. Fachrurrozy, A. Aziz, and H. Hartono, "Otomatisasi tracking panel surya berbasis arduino uno dalam penggunaan energi alternatif," *Jurnal Teras Fisika*:



- Teori, Modeling, dan Aplikasi Fisika*, vol. 2, no. 1, pp. 22–33, 2019. [Online]. Available: <https://jurnalonline.unsoed.ac.id/index.php/tf/article/view/1369>
- [11] Arumka. (2025, May) Mengenal energi surya: Pengertian, manfaat, dan penerapannya di indonesia. Yayasan IAR Indonesia. [Online]. Available: <https://yiari.or.id/mengenal-energi-surya/>
- [12] A. I. Aulia. (2024, Aug.) Energi surya: Pengertian, manfaat, dan contoh pemanfaatannya. Solar Industri - PT Megah Anugerah Energi. [Online]. Available: <https://solarindustri.com/blog/energi-surya/>
- [13] Union of Concerned Scientists. (2020, Dec.) Benefits of renewable energy use. [Online]. Available: <https://www.ucs.org/resources/benefits-renewable-energy-use>
- [14] A. Staff. (2024, May 30) Comprehensive guide to solar panel types. Aurora Solar. [Online]. Available: <https://aurorasolar.com/blog/solar-panel-types-guide/>
- [15] U. Noor. (2025, April 4) Types of solar panels: Which is best for you (2025). 8MSolar. [Online]. Available: <https://8msolar.com/types-of-solar-panels/>
- [16] R. Banerjee, “Solar tracking system,” *International Journal of Scientific and Research Publications*, vol. 5, no. 3, March 2015.
- [17] A. E. Hammoumi, S. Motahhir, A. E. Ghzizal, A. Chalh, and A. Derouich, “A simple and low-cost active dual-axis solar tracker,” *Energy Science & Engineering*, vol. 6, pp. 607 – 620, 2018.
- [18] A. Y. Hatata, A. Al-Otaibi, and F. A. Alotaibi, “Design and implementation of a hybrid solar tracker system to maximize energy harvesting in ksa,” in *2024 Conference on Renewable Energy Technologies and Modern Communications Systems: Future and Challenges*, 2024, pp. 1–5.
- [19] S. S. Jaafar, H. A. Maarof, H. B. Hamasalh, and K. M. Ahmed, “Comparative performance evaluation of dual-axis solar trackers: Enhancing solar harvesting efficiency,” *Journal of Mechatronics, Electrical Power, and Vehicular Technology*, 2024.
- [20] S. Hs, “Solar tracking system untuk mengoptimalkan penyerapan energi matahari pada solar cell menggunakan mikrokontroler atmega 8535,” vol. 2, pp. 81–88, 2020.



- [21] A. Singh, S. Adhav, A. Dalvi, A. Chippa, and M. Rane, “Arduino based dual axis solar tracker,” in *2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)*, 2022, pp. 1789–1793.
- [22] Smarthon Limited, “16. digital light sensor (bh1750),” https://smarthon-docs-en.readthedocs.io/en/latest/Sensors_and_actuators/Digital_Light_sensor.html, 2020, smarthon Documentation 1.0.
- [23] T. Suryana, “Measuring light intensity using the bh1750 sensor,” *Teaching Resource*, 2021.
- [24] E. Tri Yanto. (2024, July) Arduino dengan sensor cahaya lingkungan bh1750. Nusabot. [Online]. Available: <https://nusabot.id/blog/arduino-dengan-sensor-cahaya-lingkungan-bh1750/>
- [25] N. Awalloedin, W. Gata, and H. Setiawan, “Prediksi harga beras super dan medium menggunakan lstm dan bilstm (moving average smoothing),” *Jurnal Ilmu Komputer*, vol. 16, no. 1, 2023, [Online]. Available: <https://hargapangan.id/>.
- [26] IBM. (2025, Feb.) Apa itu regresi linier? [Online]. Available: <https://www.ibm.com/id-id/think/topics/linear-regression>
- [27] M. Rohmah. (2024) Analisis regresi: Pengertian, rumus, fungsi dan manfaatnya. dibimbing. [Online]. Available: <https://dibimbing.id/blog/detail/analisis-regresi-pengertian-rumus-fungsi-manfaatnya>
- [28] N. Hanifah, N. Herrhyanto, and F. Agustina, “Penerapan metode weighed least square untuk mengatasi heteroskedastisitas pada analisis regresi linear,” vol. 3, pp. 105–114, 2015.
- [29] N. Nurhayati and B. Maisura, “Pengaruh intensitas cahaya terhadap nyala lampu dengan menggunakan sensor cahaya light dependent resistor,” *CIRCUIT: Jurnal Ilmiah Pendidikan Teknik Elektro*, vol. 5, no. 2, pp. 103–122, 2021.
- [30] W. Setya, A. Ramadhana, H. R. Putri, A. Santoso, A. Malik, and M. Chusni, “Design and development of measurement of measuring light resistance using light dependent resistance (ldr) sensors,” *Journal of Physics: Conference Series*, vol. 1402, 2019.
- [31] A. Khuriati, “Sistem pemantau intensitas cahaya ambien dengan sensor bh1750 berbasis mikrokontroler arduino nano,” *BERKALA FISIKA*, vol. 25, no. 3, pp. 105–110, 2022.



- [32] M. M. Lumembang and H. S. Kolibu, “Rancang bangun luxmeter menggunakan sensor bh1750 berbasis arduino sebagai alat ukur intensitas cahaya,” *Jurnal FisTa: Fisika dan Terapannya*, vol. 5, no. 2, pp. 106–111, 2024.
- [33] Ardutech. (2022, August 31) Mengenal esp32 development kit untuk iot (internet of things). [Online]. Available: <https://www.ardutech.com/mengenal-esp32-development-kit-untuk-iot-internet-of-things/>
- [34] icasolar.com. (n.d.) Solar energy for everybody. [Online]. Available: <https://m.icasolar.com/support/blog/>
- [35] T. Pro. (2021, June 18) Mg996r – tower pro. [Online]. Available: <https://towerpro.com.tw/product/mg996r/>
- [36] Yee. (2023, December 14) Apa itu solar charge controller? memahami kontroler surya - atonergi. [Online]. Available: <https://atonergi.com/apa-itu-solar-charge-controller-memahami-kontroler-surya/>
- [37] Tim Penelitian Energi Terbarukan, “Analisis pengaruh intensitas cahaya terhadap kerja panel surya 50 wp,” *Jurnal Teknik Elektro*, vol. 12, no. 2, pp. 45–60, 2021. [Online]. Available: <https://repository.umsu.ac.id/bitstream/handle/123456789/5431/Analisis%20Pengaruh%20Intensitas%20Cahaya%20Terhadap%20Kerja%20Panel%20Surya%2050%20Wp.pdf>
- [38] D. Darmawan and E. Wijaya, “Rancang bangun sistem kontrol tracking panel surya dengan sensor ldr,” in *Prosiding Seminar Nasional Teknologi Elektro*, 2019, pp. 112–120. [Online]. Available: <https://ejournal.unesa.ac.id/index.php/JTE/article/download/46214/39114>
- [39] R. Siregar and T. Harahap, “Pengaruh perubahan arah sudut sel surya terhadap efisiensi daya keluaran,” *Jurnal Semnastek*, vol. 7, no. 1, pp. 33–40, 2020. [Online]. Available: <https://jurnal.umj.ac.id/index.php/semnastek/article/view/1983>
- [40] A. Pratama and H. Subagio, “Pengaruh sudut surya terhadap daya keluaran sel surya 10 wp,” Lembaga Penelitian Energi Hijau, Tech. Rep., 2019. [Online]. Available: <https://media.neliti.com/media/publications/275144-pengaruh-sudut-surya-terhadap-daya-kelua-617185db.pdf>
- [41] Art of Circuits. (n.d.) Gy-302 bh1750 16-bit serial output light lux sensor module. [Online]. Available: <https://artofcircuits.com/product/gy-302-bh1750-16-bit-serial-output-light-lux-sensor-module>



- [42] M. Schoeffler. (2023) Arduino tutorial: Mg 996r servo motor. [Online]. Available: <https://mschoeffler.com/2021/07/17/arduino-tutorial-mg-996r-servo-motor/>
- [43] Niarsuwiarti. (2017, September 30) Teori konversi energi pada sel surya silikon. Lecturer Portal. [Online]. Available: <https://learnsolarblog.wordpress.com/2017/09/10/teori-konversi-energi-pada-sel-surya-silikon-oleh-bs-a-nss/>
- [44] A. Setiawan. (2023) Regresi linier sederhana. Diakses pada 3 Juni 2025. [Online]. Available: <https://www.smartstat.info/materi/statistika/regresi/regresi-linier-sederhana.html>