

DAFTAR PUSTAKA

- [1] M. S. I. Lubis, “Komunikasi Antarpribadi Guru dan Siswa dalam Mencegah Kenakalan Remaja,” *J. Ilmu Komun. Netw. Media*, vol. 3, no. 1, pp. 95–101, 2020, doi: 10.46576/jnm.v3i1.870.
- [2] V. Kissya, “Penggunaan Bahasa Isyarat dalam Komunikasi Antara Penyandang Tuna Rungu, Guru, serta Keluarga di (Sekolah Luar Biasa Pelita Kasih) Rumah Tiga Ambon,” no. 1, pp. 18–34, 2022.
- [3] Arnida, C. P. Maulina, A. Fitria, and N. Fadila, “Analisis Karakteristik dan Aktivitas Belajar Anak Berkebutuhan Khusus (Tunarungu) di Sekolah SLB-B YPAC Banda Aceh,” *J. Pendidik. Anak Usia Dini*, vol. 8, pp. 1–10, 2024.
- [4] E. Silpia and R. M. Sari, “Implementasi Komunikasi Bahasa Isyarat Anak Tunarungu,” *J. Ilm. Ilmu Pendidik.*, vol. 6, pp. 529–535, 2023.
- [5] WHO, “World Report On Hearing,” World Health Organization. Accessed: Oct. 24, 2025. [Online]. Available: <https://www.who.int/publications/i/item/world-report-on-hearing>
- [6] Badan Pusat Statistik, “Potret Penyandang Disabilitas Di Indonesia,” 2024. [Online]. Available: <https://www.bps.go.id>
- [7] I. Sari, Fivrenodi, E. Altiarika, and Sarwindah, “Sistem Pengembangan Bahasa Isyarat Untuk Berkomunikasi dengan Penyandang Disabilitas (Tunarungu),” *J. Inf. Technol. Soc.*, vol. 1, no. 1, pp. 20–25, 2023.
- [8] T. Handhika, R. I. M. Zen, Murni, D. P. Lestari, and I. Sari, “Gesture recognition for Indonesian Sign Language (BISINDO),” *J. Phys. Conf. Ser.*, no. 1, 2018, doi: 10.1088/1742-6596/1028/1/012173.
- [9] A. H. Rasidy and I. A. E. Zaeni, “Implementasi Decision Tree pada Sarung Tangan Pintar Penerjemah Sistem Isyarat Bahasa Indonesia Guna Membantu Komunikasi Penyandang Disabilitas Tunarungu,” *J. Media Elektro*, vol. XIII, no. 2, pp. 61–68, 2024, doi: 10.35508/jme.v13i2.18322.
- [10] F. Wijaya, L. Dahendra, E. S. Purwanto, and M. K. Ario, “Quantitative Analysis of Sign Language Translation using Artificial Neural Network Model,” *Procedia Comput. Sci.*, vol. 245, pp. 998–1009, 2024, doi: 10.1016/j.procs.2024.10.328.
- [11] H. El Khoukhi, A. Belatik, I. El Manaa, M. A. Sabri, Y. Abouch, and A. Aarab, “Moroccan Sign Language Recognition with a Sensory Glove Using Artificial Neural Networks,” *Digital*, vol. 5, pp. 1–14, 2025, doi: <https://doi.org/10.3390/digital5040053>.
- [12] W. A. Priadiyatna, Hudiono, and A. Rasyid, “Rancang Bangun Sarung Tangan Pintar Penerjemah Bahasa Isyarat Indonesia (Bisindo) Berbasis Iot,” *J. Jar. Telekomun.*, vol. 10, no. 4, pp. 213–219, 2020.
- [13] I. Irvanizam, I. Horatius, and H. Sofyan, “Applying Artificial Neural Network Based on Backpropagation Method for Indonesian Sign Language

- Recognition,” *Int. J. Comput. Digit. Syst.*, vol. 1, no. 1, 2023, doi: <http://dx.doi.org/10.12785/ijcds/140176>.
- [14] V. E. N. Sari, “Desain Sistem Isyarat Bahasa Indonesia (SIBI) Dua Arah Berbasis Smart-Glove dengan Metode Klasifikasi Artificial Neural Network,” Institut Teknologi Sepuluh November, 2023.
- [15] M. A. Lizamanihi, I. Munadhif, and M. A. Jami’in, “Klasifikasi Gerakan Tangan Menjadi Suara Menggunakan Neural Network,” *J. Sci. Technol.*, vol. 13, no. 3, pp. 270–276, 2020, doi: <https://doi.org/10.21107/rekayasa.v13i3.6614>.
- [16] K. C. Wungow, R. B. Widodo, and M. Subianto, “Studi Klasifikasi dengan KNN dan ANN Pada Sarung Tangan Penerjemah Angka dan Alfabet Bahasa Isyarat SIBI,” *Pros. Semin. Nas. Univ. Ma Chung*, pp. 60–74, 2022.
- [17] S. M. Ulfah and S. Ubaidah, “Penerapan Bahasa Isyarat dalam Pembelajaran bagi Anak Berkebutuhan Khusus Tuna Rungu,” *J. Disabil. Stud. Res.*, vol. 2, no. 1, pp. 29–43, 2023.
- [18] “Yuk Kita Belajar Bisindo, Kira-kira Mulai Dari Mana ya?,” Kompasiana.com. Accessed: Jan. 05, 2026. [Online]. Available: <https://www.kompasiana.com/armitaindah8999/646a373e4addee7f003b4ed4/yuk-kita-belajar-bisindo-kira-kira-mulai-dari-mana-ya>
- [19] A. I. Sukowati, N. Marliza, S. S. Nurhaliza, and L. M. Rahmah, *Internet Of Things (IoT) dengan ESP32*, 1st ed. Universitas Cendekia Abditama, 2024.
- [20] “ESP32 Pinout Diagram | ESP32-WROOM-32,” Techmemicro.com. Accessed: Mar. 05, 2026. [Online]. Available: https://www.teachmemicro.com/esp32-pinout-diagram-wroom-32/#google_vignette
- [21] V. Shah, “Flex Sensor,” Ahmedabad, India, 2014.
- [22] A. I. M. Thaim, N. Sazali, K. Kadirgama, A. S. Jamaludin, F. M. Turan, and A. N. Razak, “Smart Glove for Sign Language Translation,” *J. Adv. Res. Appl. Mech.*, vol. 1, no. 1, pp. 80–87, 2023, doi: <https://doi.org/10.37934/aram.112.1.8087>.
- [23] E. A. Prastyo, “Flex Sensor,” Edukasielektronika.com. Accessed: Mar. 05, 2026. [Online]. Available: <https://www.edukasielektronika.com/2020/11/flex-sensor.html>
- [24] M. A. W. Hazman *et al.*, “IMU Sensor-based Data Glove for Finger Joint Measurement,” *Indones. J. Electr. Eng. Comput. Sci.*, vol. 20, no. 1, pp. 82–88, 2020, doi: [10.11591/ijeecs.v20.i1.pp82-88](https://doi.org/10.11591/ijeecs.v20.i1.pp82-88).
- [25] E. A. Prastyo, “Sensor Gyroscope dan Accelerometer MPU6050,” Edukasielektronika.com. Accessed: Mar. 05, 2026. [Online]. Available: <https://www.edukasielektronika.com/2020/10/sensor-gyroscope-dan-accelerometer.html>
- [26] I. El Naqa and M. J. Murphy, *Machine Learning in Radiation Oncology*:

Theory and Applications. Springer International Publishing Switzerland, 2015. doi: 10.1007/978-3-319-18305-3.

- [27] B. Subeni, “Pengertian Artificial Intelligence dan Aplikasinya,” *jatismobile.com*. Accessed: Feb. 26, 2026. [Online]. Available: <https://jatismobile.com/id/blog/aplikasi-dan-platform-digital/pengertian-artificial-intelligence/>
- [28] I. Goodfellow, Y. Bengio, and A. Courville, *Deep Learning*, vol. 22, no. 4. The Korean Society of Medical Informatics, 2016. doi: <https://doi.org/10.4258/hir.2016.22.4.351>.
- [29] S. Chaudhary, S. Akhtar, and S. Pandey, “A Comprehensive Review of Artificial Neural Networks : Architectures , Learning Algorithms , and Real-World Applications,” *J. Sci. Innov. Adv. Res.*, vol. 1, no. 1, 2025.
- [30] B. Soni, D. K. Patel, S. B. Shah, M. Lopez-Benitez, and S. Govindasamy, “PU-DetNet: Deep Unfolding Aided Smart Sensing Framework for Cognitive Radio,” *IEEE Access*, vol. 10, pp. 98737–98751, 2022, doi: 10.1109/ACCESS.2022.3206814.