

DAFTAR PUSTAKA

- Abdul, W., Alsulaiman, M., Amin, S. U., Faisal, M., Muhammad, G., Albogamy, F. R., Bencherif, M. A., & Ghaleb, H. (2021). Intelligent real-time Arabic sign language classification using attention-based inception and BiLSTM. *Computers and Electrical Engineering*, 95(September), 107395. <https://doi.org/10.1016/j.compeleceng.2021.107395>
- Antara. (2022). *17 Juta Difabel Usia Produktif, yang Bekerja Baru 7,6 Juta Orang*. Tempo.Co. <https://difabel.tempo.co/read/1561356/17-juta-difabel-usia-produktif-yang-bekerja-baru-76-juta-orang> (Accessed 4 October 2024).
- Arjanto, D. (2022). *Hari Bahasa Isyarat Internasional: Kenali 2 Jenis Bahasa Isyarat di Indonesia*. Tempo.CO. [https://difabel.tempo.co/read/1637666/hari-bahasa-isyarat-internasional-kenali-2-jenis-bahasa-isyarat-di-indonesia#:~:text=Saat ini diketahui ada kurang,Bahasa Isyarat Indonesia \(Bisindo\)](https://difabel.tempo.co/read/1637666/hari-bahasa-isyarat-internasional-kenali-2-jenis-bahasa-isyarat-di-indonesia#:~:text=Saat ini diketahui ada kurang,Bahasa Isyarat Indonesia (Bisindo)) (Accessed 4 October 2024).
- Asri, M. A. M. M., Ahmad, Z., Mohtar, I. A., & Ibrahim, S. (2019). A real time Malaysian sign language detection algorithm based on YOLOv3. *International Journal of Recent Technology and Engineering*, 8(2 Special Issue 11), 651–656. <https://doi.org/10.35940/ijrte.B1102.0982S1119>
- Attygalle, N. T., Vuletic, U., Kljun, M., & Čopič Pucihar, K. (2024). Towards Hand Gesture Recognition Prototype Using the IWR6843ISK Radar Sensor and Leap Motion. *CEUR Workshop Proceedings*, 3657, 78–88.
- Badan Pusat Statistik Indonesia. (2023). *Data Penduduk Indonesia 2023*. BPS.Go.Id. [https://www.bps.go.id/indicator/12/1975/1/jumlah-penduduk-pertengahan-tahun.html020#:~:text=Hasil Sensus Penduduk \(SP\) 2020,\(50%2C5%25\) perempuan](https://www.bps.go.id/indicator/12/1975/1/jumlah-penduduk-pertengahan-tahun.html020#:~:text=Hasil Sensus Penduduk (SP) 2020,(50%2C5%25) perempuan) (Accessed 4 October 2024).
- Bian, W., Song, Y., Gu, N., Chan, T. Y., Lo, T. T., Li, T. S., Wong, K. C., Xue, W., & Trillo, R. A. (2023). MoMusic: A Motion-Driven Human-AI Collaborative Music Composition and Performing System. *Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023*, 37, 16057–16062. <https://doi.org/10.1609/aaai.v37i13.26907>
- Chaikaew, A., Somkuan, K., & Yuyen, T. (2021). Thai Sign Language Recognition: An Application of Deep Neural Network. *2021 Joint 6th International Conference on Digital Arts, Media and Technology with 4th ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunication Engineering, ECTI DAMT and NCON 2021*, 128–131. <https://doi.org/10.1109/ECTIDAMTNCN51128.2021.9425711>
- Fachrel, J., Pravitasari, A. A., Yulita, I. N., Ardhisasmita, M. N., & Indrayatna, F. (2023). Enhancing an Imbalanced Lung Disease X-ray Image Classification with the CNN-LSTM Model. *Applied Sciences (Switzerland)*, 13(14). <https://doi.org/10.3390/app13148227>
- Fernandez, J. (2023). *Hand landmarks detection guide*. MediaPipe. https://ai.google.dev/edge/mediapipe/solutions/vision/hand_landmarker

- Guo, Y., Liu, Y., Oerlemans, A., Lao, S., Wu, S., & Lew, M. S. (2016). Deep learning for visual understanding: A review. *Neurocomputing*, 187, 27–48. <https://doi.org/10.1016/j.neucom.2015.09.116>
- Handhika, T., Zen, R. I. M., Murni, Lestari, D. P., & Sari, I. (2018). Gesture recognition for Indonesian Sign Language (BISINDO). *Journal of Physics: Conference Series*, 1028(1). <https://doi.org/10.1088/1742-6596/1028/1/012173>
- Helen Josephine, V. L., Nirmala, A. P., & Alluri, V. L. (2021). Impact of Hidden Dense Layers in Convolutional Neural Network to enhance Performance of Classification Model. *IOP Conference Series: Materials Science and Engineering*, 1131(1), 012007. <https://doi.org/10.1088/1757-899x/1131/1/012007>
- Irdianti, I., Nur Haq I.S. Mannessa, M., Ramadhani Muchsin, N., & Afifah Andranatha, A. (2022). Pelatihan Bahasa Isyarat Di Lingkup Sentra Wirajaya Di Makassar Dalam Membangun Komunikasi Efektif Kepada Tunarungu (Tuli). *JOURNAL OF COMMUNITY DEDICATION*, 2(4 SE-Articles), 196–210. <https://adisampublisher.org/index.php/pkm/article/view/225>
- Ismail, M. H., Dawwd, S. A., & Ali, F. H. (2021). Arabic Sign Language Detection Using Deep Learning Based Pose Estimation. *Proceedings of 2021 2nd Information Technology to Enhance E-Learning and Other Application Conference, IT-ELA 2021*, 161–166. <https://doi.org/10.1109/IT-ELA52201.2021.9773404>
- Kemdikbud. (2024). Kamus SIBI. In *Kemdikbud. Lembaga Penelitian dan Pengembangan Sistem Isyarat Bahasa Indonesia*, <https://pmpk.kemdikbud.go.id/sibi/> (Accessed 12 July 2024)
- Kemensos RI. (2018). *Sistem Informasi Management Penyandang Disabilitas Kemetrician Sosial*. <https://simpd.kemensos.go.id> (Accessed 27 August 2024).
- Khan, M. E., & Khan, F. (2012). A comparative study of white box, black box and grey box testing techniques. *International Journal of Advanced Computer Science and Applications*, 3(6).
- Kukil, & Durai, P. (2022). *MediaPipe – The Ultimate Guide to Video Processing*.
- Kurniawan, R. A. T., & Kaswidjanti, W. (2024). *SIBI Dynamic Gesture Translation Using MediaPipe and Long Short-Term Memory in Real-Time BT - Proceedings of the 2023 1st International Conference on Advanced Informatics and Intelligent Information Systems (ICAI3S 2023)*. 49–60. https://doi.org/10.2991/978-94-6463-366-5_6
- Lee, C. K. M., Ng, K. K. H., Chen, C. H., Lau, H. C. W., Chung, S. Y., & Tsoi, T. (2021). American sign language recognition and training method with recurrent neural network. *Expert Systems with Applications*, 167(December 2020), 114403. <https://doi.org/10.1016/j.eswa.2020.114403>
- Liu, S., Lin, W., Wang, Y., Yu, D. Z., Peng, Y., & Ma, X. (2024). Convolutional Neural Network-Based Bidirectional Gated Recurrent Unit–Additive Attention Mechanism Hybrid Deep Neural Networks for Short-Term Traffic Flow Prediction. *Sustainability (Switzerland)*, 16(5). <https://doi.org/10.3390/su16051986>

- M. Abdelgwad, M., A Soliman, T. H., I. Taloba, A., & Farghaly, M. F. (2022). Arabic aspect based sentiment analysis using bidirectional GRU based models. *Journal of King Saud University - Computer and Information Sciences*, 34(9), 6652–6662. <https://doi.org/10.1016/j.jksuci.2021.08.030>
- Millar, C., Siddique, N., & Kerr, E. (2022). LSTM Network Classification of Dexterous Individual Finger Movements. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 26(2), 113–124. <https://doi.org/10.20965/jaciii.2022.p0113>
- Mursita, R. A. (2015). Respon Tunarungu Terhadap Penggunaan Sistem Bahasa Isyarat Indonesia (SIBI) Dan Bahasa Isyarat Indonesia (BISINDO) Dalam Komunikasi. *INKLUSI*, 2(2 SE-Articles), 221–232. <https://doi.org/10.14421/ijds.2202>
- Nagaraj, P., Muneeswaran, V., Veera Reddy, L., Upendra, P., & Vishnu Vardhan Reddy, M. (2020). Programmed Multi-Classification of Brain Tumor Images Using Deep Neural Network. *Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020*, 865–870. <https://doi.org/10.1109/ICICCS48265.2020.9121016>
- Najma. (2023). Analisis Deteksi Bahasa Isyarat Indonesia (BISINDO) Dan Sistem Isyarat Bahasa Indonesia (SIBI) Secara Real-Time Menggunakan MediaPipe Dan Gated Recurrent Unit (GRU) [Universitas Padjajaran]. <https://repository.unpad.ac.id/server/api/core/bitstreams/4d4a6391-34dd-4c70-a591-1725a9379c35/content>
- Naoki, M., Atsushi, T., Kuniaki, S., & Hiroshi, F. (2019). Generation of Pseudo Chest X-ray Images from Computed Tomographic Images by Nonlinear Transformation and Bone Enhancement. *Medical Imaging and Information Sciences*, 36(3), 141–146.
- Ni, J., Wang, Y., Tang, G., Cao, W., & Yang, S. X. (2024). A lightweight GRU-based gesture recognition model for skeleton dynamic graphs. *Multimedia Tools and Applications*, 70545–70570. <https://doi.org/10.1007/s11042-024-18313-w>
- Nijmatul Aliyah, A. (2022). Implementasi Metode Human Activity Recognition (Har) Menggunakan Mediapipe Holistics dan Algoritma Long Short Term Memory (Lstm) untuk Menerjemahkan Gerakan Bahasa Isyarat Menjadi Kosa Kata. *Institutional Repository UIN Syarif Hidayatullah*, 9, 60. <https://repository.uinjkt.ac.id/dspace/handle/123456789/65450>
- Pratamasunu, G. Q. O., Nur Fajri, F., & Kurnia Sari, P. (2022). Deteksi Tangan Otomatis Pada Video Percakapan Bahasa Isyarat Indonesia Menggunakan Metode Deep Gated Recurrent Unit (GRU). *Jurnal Komputer Terapan*, 8(Vol. 8 No. 1 (2022)), 186–193. <https://doi.org/10.35143/jkt.v8i1.4901>
- Prihatmikho, K., Sains, F., & Teknologi, D. (2023). Analisis Performa Gated Recurrent Units (Gru) Untuk Sign Language Recognition Pada Bahasa Isyarat Indonesia (Bisindo) Skripsi Program Studi Teknik Informatika. *Janayu*, 6(1), 34–45.
- Putra, I. A., Nurhayati, O. D., & Eridani, D. (2022). Human Action Recognition (HAR) Classification Using MediaPipe and Long Short-Term Memory (LSTM). *Teknik*, 43(2), 190–201. <https://doi.org/10.14710/teknik.v43i2.46439>

- Raghuvveera, T., Deepthi, R., Mangalashri, R., & Akshaya, R. (2020). A depth-based Indian Sign Language recognition using Microsoft Kinect. *Sadhana - Academy Proceedings in Engineering Sciences*, 45(1), 1–13. <https://doi.org/10.1007/s12046-019-1250-6>
- Rosenblatt, M., Tejavibulya, L., Jiang, R., Noble, S., & Scheinost, D. (2024). Data leakage inflates prediction performance in connectome-based machine learning models. *Nature Communications*, 15(1), 1–15. <https://doi.org/10.1038/s41467-024-46150-w>
- Samaan, G. H., Wadie, A. R., Attia, A. K., Asaad, A. M., Kamel, A. E., Slim, S. O., Abdallah, M. S., & Cho, Y. I. (2022). MediaPipe's Landmarks with RNN for Dynamic Sign Language Recognition. *Electronics (Switzerland)*, 11(19), 1–15. <https://doi.org/10.3390/electronics11193228>
- Subramanian, B., Olimov, B., Naik, S. M., Kim, S., Park, K. H., & Kim, J. (2022). An integrated mediapipe-optimized GRU model for Indian sign language recognition. *Scientific Reports*, 12(1). <https://doi.org/10.1038/s41598-022-15998-7>
- Sundar, B., & Bagyammal, T. (2022). American Sign Language Recognition for Alphabets Using MediaPipe and LSTM. *Procedia Computer Science*, 215, 642–651. <https://doi.org/10.1016/j.procs.2022.12.066>
- Susanty, M., Fadillah, R. Z., & Irawan, A. (2021). Model Penerjemah Bahasa Isyarat Indonesia (BISINDO) Menggunakan Pendekatan Transfer Learning. *PETIR*, 15(1 SE-Articles), 1–9. <https://doi.org/10.33322/petir.v15i1.1289>
- Sutjiadi, R. (2023). Android-Based Application for Real-Time Indonesian Sign Language Recognition Using Convolutional Neural Network. *TEM Journal*, 12(3), 1541–1549. <https://doi.org/10.18421/tem123-35>
- Sze, F., Woodward, J., Tang, G., Lee, J., Cheng, K., & Mak, J. (2012). Sign Language Documentation in the Asia-Pacific Region: A Deaf-Centered Approach. *LREC - 5th Workshop on the Representation and Processing of Sign Languages: Interactions between Corpus and Lexicon*, may, 155–158.
- Venugopalan, A., & Reghunadhan, R. (2021). Applying deep neural networks for the automatic recognition of sign language words: A communication aid to deaf agriculturists. *Expert Systems with Applications*, 185(September 2020), 115601. <https://doi.org/10.1016/j.eswa.2021.115601>
- Verma, B. (2022). A two stream convolutional neural network with bi-directional GRU model to classify dynamic hand gesture. *Journal of Visual Communication and Image Representation*, 87(June), 103554. <https://doi.org/10.1016/j.jvcir.2022.103554>
- Wabang, K., Nurhayati, O., & Farikhin. (2022). Application of The Naïve Bayes Classifier Algorithm to Classify Community Complaints. *Jurnal RESTI (Rekayasa Sistem Dan Teknologi Informasi)*, 6, 872–876. <https://doi.org/10.29207/resti.v6i5.4498>
- Wang, B., & Liu, S. (2021). Prediction Method of College Students' Psychological Pressure Based on Deep Neural Network. *Scientific Programming*, 2021, 1–9. <https://doi.org/10.1155/2021/2943678>
- Wang, S., Shao, C., Zhang, J., Zheng, Y., & Meng, M. (2022). Traffic flow prediction using

- bi-directional gated recurrent unit method. *Urban Informatics*, 1(1), 1–12. <https://doi.org/10.1007/s44212-022-00015-z>
- WHO. (2021). *Deafness and hearing loss*. <https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss> (Accessed 27 August 2024)
- Zhang, F., Bazarevsky, V., Vakunov, A., Tkachenka, A., Sung, G., Chang, C.-L., & Grundmann, M. (2020). *MediaPipe Hands: On-device Real-time Hand Tracking*. <http://arxiv.org/abs/2006.10214>
- Zheng, J., Zhao, Z., Chen, M., Chen, J., Wu, C., Chen, Y., Shi, X., & Tong, Y. (2020). An Improved Sign Language Translation Model with Explainable Adaptations for Processing Long Sign Sentences. *Computational Intelligence and Neuroscience*, 2020(1). <https://doi.org/10.1155/2020/8816125>