

DAFTAR PUSTAKA

- Abdurrasyid, A., Indrianto, I., & Arianto, R. (2019). Detection of immovable objects on visually impaired people walking aids. *Telkomnika (Telecommunication Computing Electronics and Control)*, 17(2), 580–585. <https://doi.org/10.12928/TELKOMNIKA.V17I2.9933>
- Alahmadi, T. J., Rahman, A. U., Alkahtani, H. K., & Kholidy, H. (2023). Enhancing Object Detection for VIPs Using YOLOv4_Resnet101 and Text-to-Speech Conversion Model. *Multimodal Technologies and Interaction*, 7(8). <https://doi.org/10.3390/mti7080077>
- Alzahrani, N., & Al-Baity, H. H. (2023). Object Recognition System for the Visually Impaired: A Deep Learning Approach using Arabic Annotation. *Electronics (Switzerland)*, 12(3). <https://doi.org/10.3390/electronics12030541>
- Aradea, Rianto, Darmawan, I., Nugraha, G. F., & Mubarok, H. (2023). *Model Pengenalan Objek untuk Kacamatan Cerdas Berbasis Self-Adaptive Cyber-Physical System*.
- Arik, S. O., Diamos, G., Gibiansky, A., Miller, J., Peng, K., Ping, W., Raiman, J., & Zhou, Y. (2017). Deep Voice: Real-time Neural Text-to-Speech Sercan. *Advances in Neural Information Processing Systems, 2017-Decem*(10), 2963–2971.
- Boulevard, H. A., & Morgan, N. (1994). Connectionist Speech Recognition. Dalam *Connectionist Speech Recognition* (Nomor June). <https://doi.org/10.1007/978-1-4615-3210-1>
- Bourne, R. R. A., Steinmetz, J. D., Saylan, M., Mersha, A. M., Weldemariam, A. H., Wondmeneh, T. G., Sreeramareddy, C. T., Pinheiro, M., Yaseri, M., Yu, C., Zastrozhin, M. S., Zastrozhina, A., Zhang, Z. J., Zimsen, S. R. M., Yonemoto, N., Tsegaye, G. W., Vu, G. T., Vongpradith, A., Renzaho, A. M. N., ... Vos, T. (2021). Causes of blindness and vision impairment in 2020 and trends over 30 years, and prevalence of avoidable blindness in relation to VISION 2020: The Right to Sight: An analysis for the Global Burden of Disease Study. *The Lancet Global Health*, 9(2), e144–e160. [https://doi.org/10.1016/S2214-109X\(20\)30489-7](https://doi.org/10.1016/S2214-109X(20)30489-7)
- Chou, K. S., Wong, T. L., Wong, K. L., Shen, L., Aguiari, D., Tse, R., Tang, S. K., & Pau, G. (2023). A Lightweight Robust Distance Estimation Method for Navigation Aiding in Unsupervised Environment Using Monocular Camera. *Applied Sciences (Switzerland)*, 13(19). <https://doi.org/10.3390/app131911038>
- Coker, C. H. (1976). A model of articulatory dynamics and control. *Proceedings of the IEEE*, 64(4), 452–460. <https://doi.org/10.1109/PROC.1976.10154>

- Davis, K. H., Biddulph, R., & Balashek, S. (1952). Automatic Recognition of Spoken Digits. *The Journal of the Acoustical Society of America*, 24(6), 637–642. <https://doi.org/10.1121/1.1906946>
- Donahue, J., Dieleman, S., Binkowski, M., Elsen, E., & Simonyan, K. (2021). End-To-End Adversarial Text-To-Speech. *ICLR 2021 - 9th International Conference on Learning Representations*, 1–23.
- Fernández Martínez, J. L., & García Gonzalo, E. (2009). The PSO family: Deduction, stochastic analysis and comparison. *Swarm Intelligence*, 3(4), 245–273. <https://doi.org/10.1007/s11721-009-0034-8>
- Ganesan, J., Azar, A. T., Alsenan, S., Kamal, N. A., Qureshi, B., & Hassanien, A. E. (2022). Deep Learning Reader for Visually Impaired. *Electronics (Switzerland)*, 11(20), 1–22. <https://doi.org/10.3390/electronics11203335>
- Guravaiah, K., Bhavadeesh, Y. S., Shwejan, P., Vardhan, A. H., & Lavanya, S. (2022). Third Eye: Object Recognition and Speech Generation for Visually Impaired. *Procedia Computer Science*, 218, 1144–1155. <https://doi.org/10.1016/j.procs.2023.01.093>
- Hidayat, A., & Supriadi, D. (2019). Jurnal Teknik Informatika Tongkat Tunanetra Pintar Menggunakan Arduino. *Jutekin*, 7(1), 1–10.
- Hsieh, I. H., Cheng, H. C., Ke, H. H., Chen, H. C., & Wang, W. J. (2021). A CNN-based wearable assistive system for visually impaired people walking outdoors. *Applied Sciences (Switzerland)*, 11(21). <https://doi.org/10.3390/app112110026>
- Islam, R. Bin, Akhter, S., Iqbal, F., Saif Ur Rahman, M., & Khan, R. (2023). Deep learning based object detection and surrounding environment description for visually impaired people. *Heliyon*, 9(6), e16924. <https://doi.org/10.1016/j.heliyon.2023.e16924>
- Jiang, M., Luo, Y. P., & Yang, S. Y. (2007). Stochastic convergence analysis and parameter selection of the standard particle swarm optimization algorithm. *Information Processing Letters*, 102(1), 8–16. <https://doi.org/10.1016/j.ipl.2006.10.005>
- Jiang, S., Guo, K., Liao, J., & Zheng, G. (2018). Solving Fourier ptychographic imaging problems via neural network modeling and TensorFlow. *Biomedical Optics Express*, 9(7), 3306. <https://doi.org/10.1364/boe.9.003306>
- Jocher, G. (2020). *YOLOv5 by Ultralytics*. <https://github.com/ultralytics/yolov5>
- Jocher, G., Chaurasia, A., & Qiu, J. (2023). *YOLOv8 by Ultralytics*. <https://github.com/ultralytics/ultralytics>

- John, M. M., Olsson, H. H., & Bosch, J. (2020). Developing ML/DL Models: A Design Framework. *2020 IEEE/ACM International Conference on Software and System Processes (ICSSP)*, 1–10.
- Joshi, N., Maurya, S., & Jain, S. (2021). Real-time object detection and identification for visually challenged people using mobile platform. *CEUR Workshop Proceedings*, 2823, 47–59.
- Joshi, R. C., Yadav, S., Dutta, M. K., & Travieso-Gonzalez, C. M. (2020). Efficient multi-object detection and smart navigation using artificial intelligence for visually impaired people. *Entropy*, 22(9). <https://doi.org/10.3390/e22090941>
- Kadhim, M., & Oleiwi, B. (2022). Blind Assistive System based on Real Time Object Recognition using Machine learning. *Engineering and Technology Journal*, 40(1), 159–165. <https://doi.org/10.30684/etj.v40i1.1933>
- Kessentini, S., & Barchiesi, D. (2015). Particle Swarm Optimization with Adaptive Inertia Weight. *International Journal of Machine Learning and Computing*, 5(5), 368–373. <https://doi.org/10.7763/ijmlc.2015.v5.535>
- Khan, W., Hussain, A., Khan, B. M., & Crockett, K. (2023). Outdoor mobility aid for people with visual impairment: Obstacle detection and responsive framework for the scene perception during the outdoor mobility of people with visual impairment. *Expert Systems with Applications*, 228, 120464. <https://doi.org/10.1016/j.eswa.2023.120464>
- Konaite, M., Owolawi, P. A., Mapayi, T., Malele, V., Odeyemi, K., Aiyetoro, G., & Ojo, J. S. (2021). *Smart Hat for the blind with Real-Time Object Detection using Raspberry Pi and TensorFlow Lite*. 1–6. <https://doi.org/10.1145/3487923.3487929>
- Krizhevsky, A., Sutskever, I., & Hinton, G. E. (2012). ImageNet Classification with Deep Convolutional Neural Networks. Dalam F. Pereira, C. J. Burges, L. Bottou, & K. Q. Weinberger (Ed.), *Advances in Neural Information Processing Systems* (Vol. 25). Curran Associates, Inc.
- Lee, D., & Cho, J. (2022). Automatic Object Detection Algorithm-Based Braille Image Generation System for the Recognition of Real-Life Obstacles for Visually Impaired People. *Sensors*, 22(4). <https://doi.org/10.3390/s22041601>
- Li, C., Li, L., Jiang, H., Weng, K., Geng, Y., Li, L., Ke, Z., Li, Q., Cheng, M., Nie, W., Li, Y., Zhang, B., Liang, Y., Zhou, L., Xu, X., Chu, X., Wei, X., & Wei, X. (2022). *YOLOv6: A Single-Stage Object Detection Framework for Industrial Applications*.
- Li, X., Wang, W., Wu, L., Chen, S., Hu, X., Li, J., Tang, J., & Yang, J. (2020). Generalized focal loss: Learning qualified and distributed bounding boxes for

- dense object detection. *Advances in Neural Information Processing Systems, 2020-Decem*, 1–14.
- Li, X., Wu, S., Li, X., Yuan, H., & Zhao, D. (2020). Particle Swarm Optimization-Support Vector Machine Model for Machinery Fault Diagnoses in High-Voltage Circuit Breakers. *Chinese Journal of Mechanical Engineering (English Edition)*, 33(1). <https://doi.org/10.1186/s10033-019-0428-5>
- Lin, T. Y., Maire, M., Belongie, S., Hays, J., Perona, P., Ramanan, D., Dollár, P., & Zitnick, C. L. (2014). Microsoft COCO: Common objects in context. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8693 LNCS(PART 5), 740–755. https://doi.org/10.1007/978-3-319-10602-1_48
- Mahendru, M., & Dubey, S. K. (2021). Real time object detection with audio feedback using Yolo vs. Yolo_V3. *Proceedings of the Confluence 2021: 11th International Conference on Cloud Computing, Data Science and Engineering*, 734–740. <https://doi.org/10.1109/Confluence51648.2021.9377064>
- Malik, M., Malik, M. K., Mehmood, K., & Makhdoom, I. (2021). Automatic speech recognition: a survey. *Multimedia Tools and Applications*, 80(6), 9411–9457. <https://doi.org/10.1007/s11042-020-10073-7>
- Mandhala, V. N., Bhattacharyya, D., Vamsi, B., & Thirupathi Rao, N. (2020). Object detection using machine learning for visually impaired people. *International Journal of Current Research and Review*, 12(20), 157–167. <https://doi.org/10.31782/IJCRR.2020.122032>
- Manjari, K., Verma, M., & Singal, G. (2020). A survey on Assistive Technology for visually impaired. *Internet of Things (Netherlands)*, 11. <https://doi.org/10.1016/j.iot.2020.100188>
- Mashiata, M., Ali, T., Das, P., Tasneem, Z., Badal, M. F. R., Sarker, S. K., Hasan, M. M., Abhi, S. H., Islam, M. R., Ali, M. F., Ahamed, M. H., Islam, M. M., & Das, S. K. (2022). Towards assisting visually impaired individuals: A review on current status and future prospects. *Biosensors and Bioelectronics: X*, 12(August), 100265. <https://doi.org/10.1016/j.biosx.2022.100265>
- Mukhiddinov, M., & Cho, J. (2021). Smart glass system using deep learning for the blind and visually impaired. *Electronics (Switzerland)*, 10(22). <https://doi.org/10.3390/electronics10222756>
- Najm, H., Elferjani, K., & Alariyibi, A. (2022). Assisting Blind People Using Object Detection with Vocal Feedback. *2022 IEEE 2nd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control*

- and Computer Engineering, MI-STA 2022 - Proceeding*, 48–52.
<https://doi.org/10.1109/MI-STA54861.2022.9837737>
- Noman, M., Stankovic, V., & Tawfik, A. (2020). Portable offline indoor object recognition system for the visually impaired. *Cogent Engineering*, 7(1).
<https://doi.org/10.1080/23311916.2020.1823158>
- Oord, A. van den, Dieleman, S., Zen, H., Simonyan, K., Vinyals, O., Graves, A., Kalchbrenner, N., Senior, A., & Kavukcuoglu, K. (2016). *WaveNet: A Generative Model for Raw Audio*. 1–15.
- Pi, R., Cortez, G. D. V, Valenton, J. C. D., & Ibarra, J. B. G. (2022). *Low-Cost Smart Glasses for Blind Individuals using*. 6(3), 6081–6088.
- Ping, W., Peng, K., & Chen, J. (2019). Clarinet: Parallel wave generation in end-to-end text-to-speech. *7th International Conference on Learning Representations, ICLR 2019*.
- Ping, W., Peng, K., Gibiansky, A., Arik, S., Kannan, A., Narang, S., Raiman, J., & Miller, J. (2018). Deep Voice 3: Scaling text-to-speech with convolutional sequence learning. *6th International Conference on Learning Representations, ICLR 2018 - Conference Track Proceedings*, 1–16.
- Rahman, M. A., & Sadi, M. S. (2021). IoT Enabled Automated Object Recognition for the Visually Impaired. *Computer Methods and Programs in Biomedicine Update*, 1(May), 100015. <https://doi.org/10.1016/j.cmpbup.2021.100015>
- Ramalakshmi, E., Kasturi, D., & V, G. (2020). Object Detector for Visually Impaired with Distance Calculation for Humans. *International Journal of Engineering and Advanced Technology*, 9(4), 834–838.
<https://doi.org/10.35940/ijeat.d7868.049420>
- Rapaić, M. R., & Kanović, Ž. (2009). Time-varying PSO - convergence analysis, convergence-related parameterization and new parameter adjustment schemes. *Information Processing Letters*, 109(11), 548–552.
<https://doi.org/10.1016/j.ipl.2009.01.021>
- Ravindra Karmarkar, R., & Honmane, Prof. V. N. (2021). Object Detection System for the Blind With Voiceguidance. *International Journal of Engineering Applied Sciences and Technology*, 6(2), 67–70.
<https://doi.org/10.33564/ijeast.2021.v06i02.013>
- Redmon, J., Divvala, S., Girshick, R., & Farhadi, A. (2016). You only look once: Unified, real-time object detection. *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2016-Decem*, 779–788. <https://doi.org/10.1109/CVPR.2016.91>
- Redmon, J., & Farhadi, A. (2018). *YOLOv3: An Incremental Improvement*.

- Ren, Y., Hu, C., Tan, X., Qin, T., Zhao, S., Zhao, Z., & Liu, T. Y. (2021). FastSpeech 2: Fast and High-Quality End-To-End Text To Speech. *ICLR 2021 - 9th International Conference on Learning Representations*, 1–15.
- Ren, Y., Ruan, Y., Tan, X., Qin, T., Zhao, S., Zhao, Z., & Liu, T. Y. (2019). FastSpeech: Fast, robust and controllable text to speech. *Advances in Neural Information Processing Systems*, 32(NeurIPS).
- Rocha, D., Pinto, L., Machado, J., Soares, F., & Carvalho, V. (2023). Using Object Detection Technology to Identify Defects in Clothing for Blind People. *Sensors*, 23(9). <https://doi.org/10.3390/s23094381>
- Rosebrock, A. (2015). *Find distance from camera to object/marker using Python and OpenCV*. pyimagesearch. <https://pyimagesearch.com/2015/01/19/find-distance-camera-objectmarker-using-python-opencv/>
- Sadekar, K., & Mallick, S. (2020). *Camera Calibration using OpenCV*. LearnOpenCV. <https://learnopencv.com/camera-calibration-using-opencv/>
- Sener, B. (2023). *Object Distance & Direction Detection for Blind and Low Vision People*. Medium. <https://medium.com/@batuhansenerr/object-distance-direction-detection-for-blind-and-low-vision-people-c3f3fd83cbef>
- Setiadi, B., Supriyadi, T., Nugroho, H., & Solihin, R. (2020). Navigation and Object Detection for Blind Persons Based on Neural Network. *Current Journal: International Journal Applied Technology Research*, 1(1), 56–65. <https://doi.org/10.35313/ijatr.v1i1.24>
- Supriyadi, T. (2018). Tingkat Pintar Sebagai Alat Bantu Pemantau Keberadaan Penyandang Tunanetra Melalui Smartphone. *Senter*, 181–191.
- Tan, X., Qin, T., Soong, F., & Liu, T.-Y. (2021). *A Survey on Neural Speech Synthesis*.
- Tapu, R., Mocanu, B., & Zaharia, T. (2020). Wearable assistive devices for visually impaired: A state of the art survey. *Pattern Recognition Letters*, 137(xxxx), 37–52. <https://doi.org/10.1016/j.patrec.2018.10.031>
- Terven, J., & Cordova-Esparza, D. (2023). *A Comprehensive Review of YOLO: From YOLOv1 and Beyond*. 1–34.
- Terven, J. R., & Cordova-esparza, D. M. (2024). *A C OMPREHENSIVE R EVIEW OF YOLO A RCHITECTURES IN C OMPUTER V ISION : F ROM YOLO V 1 TO YOLO V 8 AND*. 1–36.
- Tullah, R., Ramdhan, S., Akbar, R. N., & Yusuf, F. (2020). Telematika Smart-Cane for The Blind with A Sensor Detection Approach. ..., 13(2), 110–118.

- Viola, P. (2001). *Rapid Object Detection using a Boosted Cascade of Simple Features*.
- Walle, H., De Runz, C., Serres, B., & Venturini, G. (2022). A Survey on Recent Advances in AI and Vision-Based Methods for Helping and Guiding Visually Impaired People. *Applied Sciences (Switzerland)*, 12(5). <https://doi.org/10.3390/app12052308>
- Wang, Y., Skerry-Ryan, R. J., Stanton, D., Wu, Y., Weiss, R. J., Jaitly, N., Yang, Z., Xiao, Y., Chen, Z., Bengio, S., & Le, Q. (2017). Tacotron: Towards end-To-end speech synthesis. *Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2017-Augus*, 4006–4010. <https://doi.org/10.21437/Interspeech.2017-1452>
- Wong, Y. C., Lai, J.-A., Ranjit, S. S. S., Syafeeza, A. R., & Hamid, N. A. (2019). Convolutional Neural Network for Object Detection System for Blind People. *Journal of Telecommunication, Electronic and Computer Engineering*, 11, 1–6.
- Y., A., A., K., A., Y., & Pandya, N. (2017). Survey paper on Different Speech Recognition Algorithm: Challenges and Techniques. *International Journal of Computer Applications*, 175(1), 31–36. <https://doi.org/10.5120/ijca2017915472>
- Yohannes, E., Lin, P., Lin, C. Y., & Shih, T. K. (2020). Robot Eye: Automatic Object Detection and Recognition Using Deep Attention Network to Assist Blind People. *Proceedings - 2020 International Conference on Pervasive Artificial Intelligence, ICPAI 2020*, 152–157. <https://doi.org/10.1109/ICPAI51961.2020.00036>
- Zheng, Z., Wang, P., Liu, W., Li, J., Ye, R., & Ren, D. (2020). Distance-IoU loss: Faster and better learning for bounding box regression. *AAAI 2020 - 34th AAAI Conference on Artificial Intelligence*, 2, 12993–13000. <https://doi.org/10.1609/aaai.v34i07.6999>
- Zou, Z., Chen, K., Shi, Z., Guo, Y., & Ye, J. (2023). Object Detection in 20 Years: A Survey. *Proceedings of the IEEE*, 111(3), 257–276. <https://doi.org/10.1109/JPROC.2023.3238524>