

DAFTAR PUSTAKA

- [1] Kementrian Kesehatan, “Data Kondisi TBC,” <https://www.tbindonesia.or.id/pustaka-tbc/data-kondisi-tbc/>.
- [2] World Health Organization, *Global tuberculosis report 2023*. 2023.
- [3] Kementrian Kesehatan Republik Indonesia, *PETUNJUK TEKNIS PENATALAKSANAAN TUBERKULOSIS RESISTAN OBAT DI INDONESIA*. 2020.
- [4] J. G. Jang and J. H. Chung, “Diagnosis and treatment of multidrug-resistant tuberculosis,” *Yeungnam Univ J Med*, vol. 37, no. 4, pp. 277–285, Oct. 2020, doi: 10.12701/yujm.2020.00626.
- [5] Kementrian Kesehatan, “Strategi Nasional Penanggulangan Tuberkulosis di Indonesia 2020-2024,” <https://yankes.kemkes.go.id/>.
- [6] World Health Organization, “WHO consolidated guidelines on tuberculosis Module 2: Screening - systematic screening for tuberculosis disease,” Geneva, 2021.
- [7] D. Corvino, S. Shrestha, C. Hollingshead, and A. Kosmin, “Tuberculosis Screening.”
- [8] M. X. Rangaka *et al.*, “Predictive value of interferon- γ release assays for incident active tuberculosis: a systematic review and meta-analysis,” *Lancet Infect Dis*, vol. 12, pp. 45–55, 2012, doi: 10.1016/S1473.
- [9] “Informasi Seputar Skrining TB yang Perlu Diketahui,” <https://www.alodokter.com/informasi-seputar-skrining-tb-yang-perlu-diketahui>.
- [10] L. Y. Tarigan and D. Iskandar, “Pemeriksaan Adenosine Deaminase (ADA) sebagai Alternatif Diagnosis TB pada Anak,” *Cermin Dunia Kedokteran*, vol. 49, no. 7, pp. 382–385, doi: <https://doi.org/10.55175/cdk.v49i7.253>.
- [11] A. Ratan, “PCR for diagnosis of tuberculosis: where are we now?,” *Indian Journal of Tuberculosis*, vol. 47, pp. 79–81, 2000.
- [12] B. Utami, “UJI VALIDITAS TEKNIK PCR (Polymerase Chain Reaction) DAN PEMERIKSAAN MIKROSKOPIS BAKTERI TAHAN ASAM SEBAGAI ALAT DIAGNOSIS PENDERITA TB PARU DI RUMAH SAKIT PERSAHABATAN, JAKARTA”.

- [13] A. L. Garcia-Basteiro *et al.*, “Point of care diagnostics for tuberculosis,” Jan. 01, 2018, *Elsevier Espana S.L.U.* doi: 10.1016/j.pulmoe.2017.12.002.
- [14] K. R. Steingart *et al.*, “Fluorescence versus conventional sputum smear microscopy for tuberculosis: a systematic review,” 2006, *Lancet Publishing Group*. doi: 10.1016/S1473-3099(06)70578-3.
- [15] T. H nscheid, “The future looks bright: low-cost fluorescent microscopes for detection of *Mycobacterium tuberculosis* and *Coccidia*,” *Trans R Soc Trop Med Hyg*, vol. 102, no. 6, pp. 520–521, Jun. 2008.
- [16] R. Yudianta, Z. Zulmansyah, and H. Garna, “Hubungan Kepatuhan Terapi Obat Anti-Tuberkulosis Kombinasi Dosis Tetap (OAT-KDT) dengan Kesembuhan Pasien Tuberkulosis Paru Dewasa di Puskesmas Patokebeusi Subang,” *Jurnal Integrasi Kesehatan & Sains*, vol. 4, no. 1, pp. 44–49, Jan. 2022, doi: 10.29313/jiks.v4i1.9334.
- [17] TBC Indonesia, “Dahak Orang TBC: Cara Membedakan dari Dahak Normal,” <https://tbindonesia.or.id/>.
- [18] P. Desikan, “Perspective Sputum smear microscopy in tuberculosis: Is it still relevant?,” *Indian Journal of Medical Research*, pp. 442–444, Mar. 2013, [Online]. Available: http://www.who.int/tb/publications/2006/istc_report.pdf,
- [19] G. AS, A. Yunus, and A. Tjokronegoro, “Pemberantasan Penyakit Paru di Indonesia, pedoman penataan diagnostic dan terapi,” 1985.
- [20] Misnariliah and Madrika, “PENGARUH PENUNDAAN PEWARNAAN PREPARAT BAKTERI TAHAN ASAM METODE ZIEHL NEELSEN TERHADAP HASIL PEMERIKSAAN MIKROSKOPIK,” *JURNAL TEKNOSAINS KODEPENA*, vol. 1, no. 2, pp. 58–63, 2021.
- [21] H. D. S. Reinaldo and Y. Maulani, “PERBANDINGAN HASIL PEMERIKSAAN MIKROSKOPIS SPUTUM BTA TERHADAP METODE PCR (GENEXPERT) PADA PASIEN TUBERCULOSIS PARU,” *Plenary Health: Jurnal Kesehatan Paripurna*, vol. 1, no. 3, pp. 455–460, 2024.
- [22] A. Achmadi, M. M. Mardiah, and S. Wahyu, “Penerapan Pemantapan Mutu Internal terhadap Kualitas Sediaan Pewarnaan Ziehl Nielsen untuk Deteksi *Mycobacterium TB*,” *Jurnal Ilmiah Kesehatan (JIKA)*, vol. 3, no. 3, pp. 124–133, Dec. 2021, doi: 10.36590/jika.v3i3.192.

- [23] Rokom, “TBC Akibatkan Banyak Kerugian Ekonomi,” <https://sehatnegeriku.kemkes.go.id/baca/umum/20190319/4629770/tbc-akibatkan-banyak-kerugian-ekonomi/>.
- [24] O. Solihin, D. P. Lubis, P. Muljono, and S. Amanah, “THE ECONOMIC IMPACT AND ROLE OF HEALTH COMMUNICATION IN THE ECONOMIC RECOVERY OF TUBERCULOSIS (TB) PATIENTS IN INDONESIA,” *Journal of Eastern European and Central Asian Research*, vol. 10, no. 6, pp. 911–920, 2023, doi: 10.15549/jeecar.v10i6.1510.
- [25] A. Sejati and L. Sofiana, “Jurnal Kesehatan Masyarakat,” 2015. [Online]. Available: <http://journal.unnes.ac.id/nju/index.php/kemas>
- [26] D. Hazra, V. P. Shenoy, and K. Chawla, “Same day sputum microscopy for screening of pulmonary tuberculosis: Its accuracy and usefulness in comparison with conventional method,” *J Pure Appl Microbiol*, vol. 13, no. 2, pp. 1251–1256, 2019, doi: 10.22207/JPAM.13.2.67.
- [27] S. Aulia, A. B. Suksmono, T. R. Mengko, and B. Alisjahbana, “A Novel Digitized Microscopic Images of ZN-Stained Sputum Smear and Its Classification Based on IUATLD Grades,” *IEEE Access*, vol. 12, pp. 51364–51380, 2024, doi: 10.1109/ACCESS.2024.3386208.
- [28] W. Nordhaus, “Chapter One. The Health of Nations: The Contribution of Improved Health to Living Standards,” *Measuring the Gains from Medical Research*, 2003.
- [29] geeksforgeeks, “Digital Image Processing Basics,” <https://www.geeksforgeeks.org/computer-graphics/digital-image-processing-basics/>.
- [30] “admin,+Buku+Ajar+Pengolahan+Citra+Digital.”.
- [31] IBM Team, “Apa itu convolutional neural network?,” <https://www.ibm.com/id-id/think/topics/convolutional-neural-networks>.
- [32] IONOS editorial team, “What is a convolutional neural network (CNN)?,” IONOS.
- [33] AnalytixLabs, “Convolutional Neural Networks – Definition, Architecture, Types, Applications, and more,” <https://www.analytixlabs.co.in/blog/convolutional-neural-network/>.

- [34] skillplus, “Pengenalan Convolutional Neural Network (CNN),” <https://skillplus.web.id/pengenalan-convolutional-neural-network-cnn/>.
- [35] Avijeet Biswal, “CNN in Deep Learning: Algorithm and Machine Learning Uses,” <https://www.simplilearn.com/tutorials/deep-learning-tutorial/convolutional-neural-network>.
- [36] Alejandro Ito Aramendia, “Convolutional Neural Networks (CNNs): A Complete Guide,” <https://medium.com/@alejandro.itoaramendia/convolutional-neural-networks-cnns-a-complete-guide-a803534a1930>.
- [37] geeksforgeeks editor, “Softmax Activation Function in Neural Networks,” <https://www.geeksforgeeks.org/>.
- [38] geeksforgeeks Team, “Understanding the Confusion Matrix in Machine Learning,” <https://www.geeksforgeeks.org/machine-learning/confusion-matrix-machine-learning/>.
- [39] M. Sonka, V. Hlavac, and R. Boyle, *Image processing, analysis and machine vision*. Springer, 2013.
- [40] Z.-Q. Zhao, P. Zheng, S. Xu, and X. Wu, “Object detection with deep learning: A review,” *IEEE Trans Neural Netw Learn Syst*, vol. 30, no. 11, pp. 3212–3232, 2019.
- [41] J. Redmon, S. Divvala, R. Girshick, and A. Farhadi, “You only look once: Unified, real-time object detection,” in *Proceedings of the IEEE conference on computer vision and pattern recognition*, 2016, pp. 779–788.
- [42] R. Khanam and M. Hussain, “Yolov11: An overview of the key architectural enhancements. arXiv 2024,” *arXiv preprint arXiv:2410.17725*, 2024.
- [43] J. Du, “Understanding of object detection based on CNN family and YOLO,” in *Journal of Physics: Conference Series*, 2018, p. 12029.
- [44] R. Khanam, M. Hussain, R. Hill, and P. Allen, “A comprehensive review of convolutional neural networks for defect detection in industrial applications,” *IEEE Access*, 2024.
- [45] CSDN, “YOLOv11 Technical Architecture and Module Analysis,” https://blog.csdn.net/weixin_43199439/article/details/147030497.
- [46] S. Mallick, “YOLOv11 - LearnOpenCV,” 2024.
- [47] J. Solawetz, “Francesco, what is yolov8? the ultimate guide,” *Roboflow*, 2023.

- [48] G. Xue *et al.*, “Application of YOLOv7-tiny in the detection of steel surface defects,” in *Proceedings of the 3rd International Conference on Computer, Artificial Intelligence and Control Engineering*, 2024, pp. 718–723.
- [49] Indonesia Kaggle, “Apa Itu Kaggle Notebooks?,” 2024.
- [50] Annisadev, “Mengenal Roboflow: Solusi Lengkap untuk Pengembangan Model Computer Vision,” 2024.
- [51] Trivusi, “Apa Bedanya Epoch dan Batch Size pada Deep Learning?,” <https://www.trivusi.web.id/2022/08/epoch-dan-batch-size.html>.
- [52] TensorFlow, “Module: `tf.keras.callbacks`,” https://www.tensorflow.org/api_docs/python/tf/keras/callbacks.
- [53] DQLab, “Hyperparameter Tuning dalam Proses Pemodelan Data,” 2024.
- [54] M. Nurkholis, “Mengenal Pre-trained Model: EfficientNet,” 2024.
- [55] Dede Kurniadi, Rifky Muhammad Shidiq, and Asri Mulyani, “Perbandingan Penggunaan Optimizer dalam Klasifikasi Sel Darah Putih Menggunakan Convolutional Neural Network,” *Jurnal Nasional Teknik Elektro dan Teknologi Informasi*, vol. 14, no. 1, pp. 77–86, Mar. 2025, doi: 10.22146/jnteti.v14i1.17162.
- [56] Python, “Apa itu Python? Ringkasan Eksekutif,” <https://www.python.org/doc/essays/blurb/>.
- [57] Gita Sri Wahyuni, “Bahasa Pemrograman yang Trend di 2024,” <https://www.rri.co.id/ipitek/1008300/bahasa-pemrograman-yang-trend-di-2024>.
- [58] Siti Aisyah, “Bahasa Pemrograman yang Trend di 2024,” <https://rri.co.id/ipitek/1008300/bahasa-pemrograman-yang-trend-di-2024>.
- [59] Andre Oliver, “Mengenal Google Colab: Mulai dari Definisi, Cara Menggunakan, hingga Manfaatnya,” <https://glints.com/id/lowongan/google-colab-adalah/>.
- [60] Rita Puspita Sari, “Apa Itu Google Drive? Pengertian, Fungsi & Cara Menggunakannya,” <https://www.cloudcomputing.id/pengetahuan-dasar/apa-itu-google-drive>.
- [61] R. S. Martin and Y. Dewanto, “PROTOTIPE KUNCI PINTU OTOMATIS MENGGUNAKAN SENSOR KAMERA BERBASIS RASPBERRY,” *Jurnal Teknologi Industri*, vol. 12, no. 1.

- [62] J. Salendah, P. Kalele, A. Tulenan, and S. K. Joshua, “Penentuan Beasiswa Dengan Metode Fuzzy Tsukamoto Berbasis Web Scholarship Determination Using Web Based Fuzzy Tsukamoto Method,” *Proseding SNASIKOM*, vol. 2, no. 1, 2022.
- [63] R. Ramadhan, E. Fitria, and R. Rosdiana, “Deteksi mycobacterium tuberculosis dengan pemeriksaan mikroskopis dan teknik pcr pada penderita tuberkulosis paru di puskesmas darul imarah,” *Sel Jurnal Penelitian Kesehatan*, vol. 4, no. 2, pp. 73–80, Nov. 2017, doi: 10.22435/sel.v4i2.1463.