



DAFTAR PUSTAKA

- [1] G. Flandrin, “Proposals for the Classification of the Acute Leukaemias,” 1976.
- [2] S. Paul, P. Bcop, H. Kantarjian, and E. J. Jabbour, “Adult Acute Lymphoblastic Leukemia,” *Mayo Clin. Proc.*, vol. 91, no. 11, pp. 1645–1666, 2016.
- [3] C.-H. Pui, M. V. Relling, and J. R. Downing, “Acute Lymphoblastic Leukemia,” *N. Engl. J. Med.*, 2004.
- [4] S. Chiaretti, G. Zini, and R. Bassan, “Diagnosis and Subclassification of Acute Lymphoblastic Leukemia,” *Mediterr. J. Hematol. Infect. Dis.*, 2014.
- [5] S. N. Nabili, “What Is a Complete Blood Count (CBC)? Test Results, Differential & Normal Values,” *eMedicineHealth*, 2019. [Online]. Available: https://www.emedicinehealth.com/complete_blood_count_cbc/article_em.htm#what_is_a_complete_blood_count_cbc_test. [Accessed: 25-Feb-2020].
- [6] S. Rajpurohit, S. Patil, and N. Choudhary, “Microscopic Blood Image Using Image Processing,” no. Cll, pp. 2359–2363, 2018.
- [7] F. Chollet, *Deep Learning with Python*. Manning Publications Co., 2018.
- [8] F. Li and A. Karpathy, “Convolutional Neural Networks for Visual Recognition.” Stanford University CS231n, 2015.
- [9] X. Wu, D. Sahoo, and S. C. H. Hoi, “Recent Advances in Deep Learning for Object Detection,” *Neurocomputing*, 2020.
- [10] F. Asadi, F. M. Putra, M. I. Sakinatunnisa, F. Syafria, and I. Marzuki, “Implementation of Backpropagation Neural Network and Blood Cells Imagery Extraction for Acute Leukemia Classification,” *2017 5th Int. Conf. Instrumentation, Commun. Inf. Technol. Biomed. Eng.*, no. November, pp. 106–110, 2017.
- [11] A. Ghosh, S. Singh, and D. Sheet, “Simultaneous Localization and Classification of Acute Lymphoblastic Leukemic Cells in Peripheral Blood Smears Using a Deep Convolutional Network with Average Pooling Layer,” pp. 1–6, 2017.
- [12] J. Wang and L. Perez, “The Effectiveness of Data Augmentation in Image Classification using Deep Learning,” *Cornell Univ.*, 2017.
- [13] A. Rahman and M. Hasan, “Automatic Detection of White Blood Cells from Microscopic Images for Malignancy Classification of Acute Lymphoblastic



Leukemia,” *2018 Int. Conf. Innov. Eng. Technol.*, pp. 1–6, 2018.

- [14] F. Soni, L. Sahu, M. E. Getnet, and B. Y. Reta, “Leukemia Segmentation and Classification Using Image Processing,” *2018 2nd Int. Conf. Trends Electron. Informatics*, no. Icoei, pp. 1075–1079, 2018.
- [15] L. H. S. Vogado, R. M. S. Veras, F. H. D. Araujo, R. R. V Silva, and R. T. Aires, “Engineering Applications of Artificial Intelligence Leukemia diagnosis in blood slides using transfer learning in CNNs and SVM for classification,” *Eng. Appl. Artif. Intell.*, vol. 72, no. April, pp. 415–422, 2018.
- [16] S. Mishra, B. Majhi, and P. K. Sa, “Biomedical Signal Processing and Control Texture feature based classification on microscopic blood smear for acute lymphoblastic leukemia detection,” *Biomed. Signal Process. Control*, vol. 47, pp. 303–311, 2019.
- [17] A. Rahyagara, “Deteksi Jenis Sel Darah Putih Menggunakan Convolutional Neural Network,” Universitas Gadjah Mada, 2018.
- [18] M. M. Alam and M. T. Islam, “Machine learning approach of automatic identification and counting of blood cells,” vol. 6, no. October 2018, pp. 103–108, 2019.
- [19] A. Prabaswara, “Deteksi Sel Limfoblas Pada Kasus Acute Lymphoblastic Leukemia Tipe L1 Menggunakan Metode Convolutional Neural Network,” Universitas Gadjah Mada, 2020.
- [20] G. Liao, “Study on Power Line Insulator Defect Detection via Improved Faster Region-Based Convolutional Neural Network,” pp. 262–266, 2019.
- [21] J. Tang, J. Wang, and L. Wang, “Multi-task Enhanced Dam Crack Image Detection Based on Faster R-CNN,” pp. 336–340, 2019.
- [22] A. C. Guyton and J. E. Hall, *Textbook Of Medical Physiology*. Elsevier Inc., 2006.
- [23] A. L. Mescher, *JUNQUEIRA'S Basic Histology Text and Atlas*, Fourteenth. McGraw-Hill Education, 2016.
- [24] J. E. Goasguen, J. M. Bennett, B. J. Bain, T. Vallespi, R. Brunning, and G. J. Mufti, “DECISION MAKING AND PROBLEM SOLVING Morphological evaluation of monocytes and their precursors,” vol. 94, no. 7, pp. 994–997, 2009.
- [25] I. M. Roitt, *ENCYCLOPEDIA OF IMMUNOLOGY*, SECOND EDI. AP, 1998.
- [26] T. Scordino MD, “Promyelocyte,” *ASH*, 2016. [Online]. Available:



<https://imagebank.hematology.org/image/60399/promyelocyte>. [Accessed: 26-Jun-2020].

- [27] A. C. Valenciano, R. L. Cowell, T. E. Rizzi, and R. D. Tyler, *ATLAS OF CANINE AND FELINE PERIPHERAL BLOOD SMEARS*. ELSEVIER MOSBY, 2014.
- [28] D. B. Murphy, *Fundamentals of Light Microscopy and Electronic Imaging*. Wiley-Liss, 2001.
- [29] V. E. Balas, *Recent Trends and Advances in Artificial Intelligence and Internet of Things*. Springer, 2020.
- [30] S. Ren, K. He, R. Girshick, and J. Sun, “Faster R-CNN : Towards Real-Time Object Detection with Region Proposal Networks,” pp. 1–14, 2016.
- [31] S. Ren, K. He, R. Girshick, and J. Sun, *Faster R-CNN : Towards Real-Time Object Detection with Region Proposal Networks*. 2016, p. 1–14.
- [32] R. Girshick, “Fast R-CNN,” pp. 1440–1448, 2015.
- [33] J. Hosang and C. V May, “Learning non-maximum suppression,” 2017.
- [34] K. He, “Deep Residual Learning for Image Recognition,” 2015.
- [35] A. Rosebrock, “Intersection over Union (IoU) for Object Detection,” 2016. [Online]. Available: <https://www.pyimagesearch.com/2016/11/07/intersection-over-union-iou-for-object-detection/>. [Accessed: 25-May-2020].
- [36] S. Ruder, “An overview of gradient descent optimization,” pp. 1–14, 2016.
- [37] C. E. T. Al and C. Cortes, “L2 Regularization for Learning Kernels,” 2009.
- [38] G. Campanella *et al.*, “Terabyte-scale Deep Multiple Instance Learning for Classification and Localization in Pathology,” 2018.
- [39] M. Everingham, L. Van Gool, C. K. I. Williams, J. Winn, and A. Zisserman, “The PASCAL Visual Object Classes (VOC) Challenge.”
- [40] M. Everingham and J. Winn, “The PASCAL Visual Object Classes Challenge 2012 (VOC2012) Development Kit,” 2012. [Online]. Available: http://host.robots.ox.ac.uk/pascal/VOC/voc2012/html/doc/devkit_doc.html#SECTION00050000000000000000000000000000. [Accessed: 29-Jun-2020].
- [41] Harinaldi, *PRINSIP-PRINSIP STATISTIK UNTUK TEKNIK DAN SAINS*. Penerbit Erlangga, 2005.



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Pendeteksian Sel Limfoblas pada Kasus Acute Lymphoblastic Leukemia Subtipe L1 Berbasis Convolutional

Neural Networks dengan Metode Faster Region-Based Convolutional Neural Networks

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- [42] I. Zulfikri, “Klasifikasi Citra Sel Darah Putih pada Pasien Terjangkit ALL Tipe L1 dengan Metode Capsule Neural Network,” *Univ. Gadjah Mada*, 2019.