DAFTAR PUSTAKA

[1]   P. Dansena, S. Bag, and R. Pal, "Differentiating Pen Inks in Handwritten Bank Cheques Using Multi-layer Perceptron", *Lect. Notes Comput. Sci. (including Subser. Lect. Notes Artif. Intell. Lect. Notes Bioinformatics)*, vol. **10597** LNCS, pp. 655–663, 2017.

[2]   M. Billah, M. K. Ruman, N. Sadat, and M. M. Islam, "Bangladeshi Post Office Automation System Using Neural Network", *2nd International Conference Electrical Computer and Communication Engineering (ECCE) 2019*, pp. 1–4, 2019.

[3]   I. Ramadhan dan G. Hermawan, "Pengenalan Pola Citra Tulisan Tangan Aksara Sunda dengan Metode Convolutional Neural Network", 2018.

[4]   R. Rahmat Riansyah, Y. Indrawaty Nurhasanah, dan I. Amelia Dewi, "Sistem Pengenalan Aksara Sunda Menggunakan Metode Modified Direction Feature Dan Learning Vector Quantization," *Jurnal Teknik Informatika dan Sistem Informasi*, vol. **3**, no. **1**, pp. 17–30, 2017.

[5]   R. Dani, A. Sugiharto, dan G. A. Winara, "Aplikasi Pengolahan Citra Dalam Pengenalan Pola Huruf Ngalagena Menggunakan MATLAB," *Konferensi Nasional Sistem dan Informasi*, pp. 772–777, 2015.

[6]   A. Kirana, H. Hikmayanti, dan J. Indra, "Pengenalan Pola Aksara Sunda dengan Metode Convolutional Neural Network", *Scientific Student Journal for Information, Technolpgy and Science*, vol. **1**, pp. 95–100, 2020.

[7]   S. Ali, J. Li, Y. Pei, M. S. Aslam, Z. Shaukat, dan M. Azeem, "An effective and improved cnn-elm classifier for handwritten digits recognition and classification", *Symmetry*, vol. **12**, no. **10**, pp. 1–15, 2020.

[8]   P. Wang, X. Zhang, dan Y. Hao, "A Method Combining CNN and ELM for Feature Extraction and Classification of SAR Image", *Journal of Sensors*, vol. **2019**, 2019.

[9]   S. Pang dan X. Yang, "Deep Convolutional Extreme Learning Machine and Its Application in Handwritten Digit Classification," *Computational Intelligence and Neuroscience*, vol. **2016**, 2016.

[10]   P. Hao, J.-H. Zhai, dan S.-F. Zhang, "A simple and effective method for image classification",*International Conference on Machine Learning and Cybernetics (ICMLC)*, Jul. 2017, vol. **9**, pp. 230–235,2017.

[11]   S. Ding, L. Guo, dan Y. Hou, "Extreme learning machine with kernel model based on deep learning", *Neural Computing and Application.*, vol. **28**, no. **8**, pp. 1975–1984, 2017.

100

[12] A. Pashaei, H. Sajedi, dan N. Jazayeri, "Brain tumor classification via convolutional neural network and extreme learning machines", *2018 8th International Conference on Computer and Knowledge Engineering,* pp. 314–319, 2018.

[13] J. Sharma, O.-C. Granmo, dan M. Goodwin, "Deep CNN-ELM Hybrid Models for Fire Detection in Images", *Artificial Neural Network and Machine Learning - ICANN 2018, vol **11141**,* pp. 245–259,2018.

[14] H. N. Al Falah dan K. K. Purnamasari, "Implementasi Convolutional Neural Network Pada Pengenalan Tulisan Tangan", 2019.

[15] I. Baidillah *et al.,* "Direktori Aksara Sunda untuk Unicode", *Pemerintah Provinsi Jawa Barat Dinas Pendidik. Provinsi Jawa Barat*, 2008.

[16] C. Tensmeyer and T. Martinez, "Historical Document Image Binarization: A Review," *SN Computer Science*, vol. **1**, no. **3**, pp. 1–26, 2020.

[17] B. K. Triwijoyo dan A. Adil, "Analysis of Medical Image Resizing Using Bicubic Interpolation Algorithm", *Jurnal Ilmu Komputer*, vol. **14**, no. **1**, pp. 20–29, 2021.

[18] R. S. Bahri dan I. Maliki, "Perbandingan Algoritma Template Matching Dan Feature Extraction Pada Optical Character Recognition", *Jurnal Ilmiah Komputer dan Informatika*, **vol. 1, no. 1**, pp. 29–35, 2012.

[19] K. He, X. Zhang, S. Ren, danJ. Sun, "Delving deep into rectifiers: Surpassing human-level performance on imagenet classification", *Proceedings IEEE International Conference Computer Vision*, vol. **2015 Inter**, pp. 1026–1034, 2015.

[20] A. Biswas dan M. S. Islam, "An Efficient CNN Model for Automated Digital Handwritten Digit Classification", *Journal of Information Systems Engineering Business Intelligence*, vol. **7**, no. **1**, p. 42, 2021.

[21] G. Bin Huang, Q. Y. Zhu, dan C. K. Siew, "Extreme learning machine: Theory and applications", *Neurocomputing*, vol. **70**, no. **1–3**, pp. 489–501, 2006.

[22] F. Sun, K.-A. Toh, M. G. Romay, dan K. Mao, Extreme Learning Machines 2013: Algorithms and Applications, Springer 2014.

[23] M. Grandini, E. Bagli, and G. Visani, "Metrics for Multi-Class Classification: an Overview", pp. 1–17, 2020.

[24] J. S. Yu, J. Chen, Z. Q. Xiang, dan Y. X. Zou, "A hybrid convolutional neural networks with extreme learning machine for WCE image classification", *2015 IEEE Intternational Conference Robotics and Biomimetics, IEEE-ROBIO 2015*, pp. 1822–1827, 2015, doi: 10.1109/ROBIO.2015.7419037.

[25] B. P. Chacko, V. R. Vimal Krishnan, G. Raju, dan P. Babu Anto, "Handwritten character recognition using wavelet energy and extreme learning machine", *International Journal Machine Learning and Cybernetics*, vol. **3**, no. **2**, pp. 149–161, 2012, doi: 10.1007/s13042-011-0049-5.

[26] D. Fitriati, "Pemeriksa Jawaban Tulisan Tangan untuk Ujian Pilihan Ganda Menggunakan Hybrid Extreme Learning Convolutional Neural Network Machine", *Jurnal Media Infotama*, vol. **15**, no. **1**, pp. 22–28, 2019.

[27] S. M. Darwish dan S. A. El Nagar, "Arabic Offline Character Recognition Using The Extreme Learning Machine Algorithm,", vol. **11**, no. **1**, pp. 1–14, 2017.

[28] D. Das, D. R. Nayak, R. Dash, dan B. Majhi, "An empirical evaluation of extreme learning machine: application to handwritten character recognition", *Multimedia Tools Application*, vol. **78**, no. **14**, pp. 19495–19523, 2019.

[29] F. Özyurt, "A fused CNN model for WBC detection with MRMR feature selection and extreme learning machine", *Soft Computing*, vol. **24**, no. **11**, pp. 8163–8172, 2020.

[30] P. Hidayatullah, "Pengolahan Citra Digital Teori dan Aplikasi Nyata"*,* Bandung: *Informatika Bandung*, 2017

[31] P. G. Glenn, "Build an Extreme Learning Machine in Python", *https://towardsdatascience.com/build-an-extreme-learning-machine-in-python-91d1e8958599,* 10 September 2021 19.30