

DAFTAR PUSTAKA

- [1] Badan Pusat Statistik, "Statistik Transportasi Darat 2020", 2019. Accessed: Apr. 15, 2022. [Online]. Available: <https://www.bps.go.id/publication/2021/11/29/4f0914ee631f397e1e6ad858/statistik-transportasi-darat-2020.html>.
- [2] Badan Pusat Statistik, "Statistik Kriminal 2019", 2019. Accessed: Apr. 15, 2022. [Online]. Available: <https://www.bps.go.id/publication/2021/12/15/8d1bc84d2055e99feed39986/statistik-kriminal-2021.html>.
- [3] S. Ravel. "Hingga Juni, 6 Juta Lebih Kendaraan di Jakarta Belum Bayar Pajak." Kompas.com. <https://otomotif.kompas.com/read/2020/06/26/092200815/hingga-juni-6-juta-lebih-kendaraan-di-jakarta-belum-bayar-pajak>, accessed : Nov. 09, 2020.
- [4] W. Weihong and T. Jiaoyang, "Research on License Plate Recognition Algorithms Based on Deep Learning in Complex Environment," in IEEE Access, vol. 8, pp. 91661-91675, 2020, doi: 10.1109/ACCESS.2020.2994287.
- [5] J. Shashirangana, H. Padmasiri, D. Meedeniya and C. Perera, "Automated License Plate Recognition: A Survey on Methods and Techniques," in IEEE Access, vol. 9, pp. 11203-11225, 2021, doi: 10.1109/ACCESS.2020.3047929.
- [6] V. P. Waroy, S. Wibirama and I. Ardiyanto, "Research on Skewed License Plate Recognition: A Systematic Literature Review," 2021 International Conference on Computer System, Information Technology, and Electrical Engineering (COSITE), 2021, pp. 1-6, doi: 10.1109/COSITE52651.2021.9649535..
- [7] J. Xing, J. Li, Z. Xie, X. Liao and W. Zeng, "Research and Implementation of an Improved Radon Transform for License Plate Recognition," 2016 8th International Conference on Intelligent Human-Machine Systems and Cybernetics (IHMSC), Hangzhou, China, 2016, pp. 42-45, doi: 10.1109/IHMSC.2016.52.
- [8] W. W. Keong and V. Iranmanesh, "Malaysian automatic number plate recognition system using Pearson correlation," 2016 IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE), Penang, Malaysia, 2016, pp. 40-45, doi: 10.1109/ISCAIE.2016.7575034.
- [9] I. Türkyilmaz and K. Kaçan, "License plate recognition system using artificial neural networks", in ETRI Journal, vol. 39, no. 2, pp. 163-172, 2017, doi: 10.4218/etrij.17.0115.0766.
- [10] Y. Zhang and C. Huang, "A Robust Chinese License Plate Detection and Recognition System in Natural Scenes," 2019 IEEE 4th International Conference on Signal and Image Processing (ICSIP), Wuxi, China, 2019, pp. 137-142, doi: 10.1109/SIPROCESS.2019.8868545.
- [11] Y. Zou et al., "A Robust License Plate Recognition Model Based on Bi-LSTM," in IEEE Access, vol. 8, pp. 211630-211641, 2020, doi: 10.1109/ACCESS.2020.3040238.

- [12] C. Lin and Y. Li, "A License Plate Recognition System for Severe Tilt Angles Using Mask R-CNN," 2019 International Conference on Advanced Mechatronic Systems (ICAMechS), Kusatsu, Shiga, Japan, 2019, pp. 229-234, doi: 10.1109/ICAMechS.2019.8861691.
- [13] A. Prasetyo, "Pengenalan Karakter pada Citra Plat Nomor yang Terdistorsi secara Perspektif," Undergraduate Thesis, Departemen of Electrical Engineering and Information Technology, Gadjah Mada University, Yogyakarta, 2016.
- [14] Lubna, Mufti, N. and Shah, S.A.A., "Automatic number plate recognition:A detailed survey of relevant algorithms," in *Sensors*, vol. 21, no. 9, 2021, doi: 10.3390/s21093028.
- [15] W. Wang, J. Yang, M. Chen and P. Wang, "A Light CNN for End-to-End Car License Plates Detection and Recognition," in *IEEE Access*, vol. 7, pp. 173875-173883, 2019, doi: 10.1109/ACCESS.2019.2956357.
- [16] J. Baek et al., "What Is Wrong With Scene Text Recognition Model Comparisons? Dataset and Model Analysis," 2019 IEEE/CVF International Conference on Computer Vision (ICCV), 2019, pp. 4714-4722, doi: 10.1109/ICCV.2019.00481.
- [17] K. Zhang, Z. Zhang, Z. Li and Y. Qiao, "Joint Face Detection and Alignment Using Multitask Cascaded Convolutional Networks," in *IEEE Signal Processing Letters*, vol. 23, no. 10, pp. 1499-1503, Oct. 2016, doi: 10.1109/LSP.2016.2603342.
- [18] D. Meng, H. Liang, C. Luo, D. Liu and Z. Wenjun, "A CNN-Based Approach for Automatic License Plate Recognition in the Wild," 2017 British Machine Vision Conference, pp. 175.1-175.12, Sept. 2017, doi: 10.5244/c.31.175.
- [19] M.Y. Arafat, A.S.M. Khairuddin and R. Paramesran, "A Vehicular License Plate Recognition Framework For Skewed Images," in *KSII Transactions on Internet and Information Systems*, vol. 12, no. 11, pp. 5522-5540, 2018, doi: 10.3837/tiis.2018.11.019.
- [20] "History of ANPR", <http://www.anpr-international.com/history-of-anpr/>, accessed : Apr. 19, 2022.
- [21] K. M. Han, B. Aye, H. M. Than and C. P. Linn, "Vision Based Vehicle Information Inspection System Using Deep Learning," 2020 International Conference on Advanced Information Technologies (ICAIT), Yangon, Myanmar, 2020, pp. 123-128, doi: 10.1109/ICAIT51105.2020.9261806.
- [22] C. Henry, S. Y. Ahn and S. Lee, "Multinational License Plate Recognition Using Generalized Character Sequence Detection," in *IEEE Access*, vol. 8, pp. 35185-35199, 2020, doi: 10.1109/ACCESS.2020.2974973.
- [23] K. D. Rusakov, "Automatic Modular License Plate Recognition System Using Fast Convolutional Neural Networks," 2020 13th International Conference "Management of large-scale system development" (MLSD), Moscow, Russia, 2020, pp. 1-4, doi: 10.1109/MLSD49919.2020.9247817.

- [24] Q. Huang, Z. Cai and T. Lan, "A New Approach for Character Recognition of Multi-Style Vehicle License Plates," in *IEEE Transactions on Multimedia*, doi: 10.1109/TMM.2020.3031074.
- [25] Tourani, A. Shahbahrami, S. Soroori, S. Khazaei and C. Y. Suen, "A Robust Deep Learning Approach for Automatic Iranian Vehicle License Plate Detection and Recognition for Surveillance Systems," in *IEEE Access*, doi: 10.1109/ACCESS.2020.3035992.
- [26] A. Kadir and A. Susanto, *Teori dan Aplikasi Pengolahan Citra*, Yogyakarta, Indonesia: Penerbit Andi, 2013.
- [27] S.S. Shai and B.D. Shai, *Understanding Machine Learning - From Theory to Algorithms*, New York, USA: Cambridge University Press, 2014.
- [28] L. Deng and D. Yu, "Deep Learning: Methods and Applications," in *Foundation and Trends in Signal Processing*, vol. 7, pp. 197-387, June 2014, doi: 10.1561/20000000039.
- [29] "What is a Convolutional Neural Network? 3 things you need to know", <https://www.mathworks.com/discovery/convolutional-neural-network-matlab.html>, accessed : Apr. 27, 2022.
- [30] "Student Notes: Convolutional Neural Networks (CNN) Introduction", <https://indoml.com/2018/03/07/student-notes-convolutional-neural-networks-cnn-introduction/>, accessed : Apr. 27, 2022.
- [31] "CS231n Convolutional Neural Networks for Visual Recognition", <https://cs231n.github.io/convolutional-networks/>, accessed : Apr. 27, 2022.
- [32] "Convolutional Neural Networks (CNN): Step 4 - Full Connection", <https://www.superdatascience.com/blogs/convolutional-neural-networks-cnn-step-4-full-connection>, accessed : Apr. 27, 2022.
- [33] "License Plate Detection Pytorch", https://github.com/xuexingyu24/License_Plate_Detection_Pytorch, accessed : Apr. 27, 2022.
- [34] M. Jaderberg, K. Simonyan, A. Zisserman and K. Kavukcuoglu, "Spatial transformer networks", 29th Annual Conference on Neural Information Processing Systems, 2015, pp. 2017-2025.
- [35] B. Shi, X. Wang, P. Lyu, C. Yao and X. Bai, "Robust Scene Text Recognition with Automatic Rectification," 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016, pp. 4168-4176, doi: 10.1109/CVPR.2016.452.
- [36] Thomas Kurbiel, "Spatial Transformer Network", <https://towardsdatascience.com/spatial-transformer-networks-b743c0d112be>, accessed: Apr 15, 2022.

- [37] V. Atliha and D. Šešok, "Comparison of VGG and ResNet used as Encoders for Image Captioning," 2020 IEEE Open Conference of Electrical, Electronic and Information Sciences (eStream), 2020, pp. 1-4, doi: 10.1109/eStream50540.2020.9108880.
- [38] K. He, X. Zhang, S. Ren and J. Sun, "Deep Residual Learning for Image Recognition," 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016, pp. 770-778, doi: 10.1109/CVPR.2016.90.
- [39] Z. Cheng, F. Bai, Y. Xu, G. Zheng, S. Pu and S. Zhou, "Focusing Attention: Towards Accurate Text Recognition in Natural Images," 2017 IEEE International Conference on Computer Vision (ICCV), 2017, pp. 5086-5094, doi: 10.1109/ICCV.2017.543.
- [40] N.K. Manaswi, *Deep Learning with Applications Using Python: Chatbots and Face, Object, and Speech Recognition With TensorFlow and Keras*, Berkely, CA, USA: Apress, 2018.
- [41] Z. Cui, R. Ke, Z. Pu and Y. Wang, "Stacked bidirectional and unidirectional LSTM recurrent neural network for forecasting network-wide traffic state with missing values," in *Transportation Research Part C: Emerging Technologies*, vol. 118, 102674, doi: 10.1016/j.trc.2020.102674.
- [42] J.W.G. Putra. (2019). Pengenalan konsep pembelajaran mesin dan deep learning. Available : <https://wiragotama.github.io/resources/ebook/intro-to-ml-secured.pdf>.
- [43] J. Redmon, S. Divvala, R. Girshick and A. Farhadi, "You Only Look Once: Unified, Real-Time Object Detection," 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, NV, 2016, pp. 779-788, doi: 10.1109/CVPR.2016.91.
- [44] J.Nelson and J.Solawetz. "YOLOv5 is Here: State-of-the-Art-Object Detection at 140 FPS." Roboflow.com. <https://blog.roboflow.com/yolov5-is-here/>, accessed : May 29, 2022.
- [45] R. Xu, H. Lin, K. Lu, L. Cao and Y. Liu, "A Forest Fire Detection System Based on Ensemble Learning," in *Forests*, vol. 12, pp. 1-17, Februari 2021, doi: 10.3390/f12020217.
- [46] S. Zherzdev and A. Gruzdev, "LPRNet: License Plate Recognition via Deep Neural Networks," in *Computing Research Repository (CoRR)*, June 2018, doi: 10.48550/arXiv.1806.10447.
- [47] M. Everingham, L. Gool, C.K. Williams, J. Winn and A. Sizzerman, "The Pascal Visual Object Classes (VOC) Challenge," in *International Journal of Computer Vision*, vol. 88, pp. 303-338, June 2010, doi: 10.1007/s11263-009-0275-4.
- [48] Sugiyono, *Statistika Untuk Penelitian*, 12th ed. Bandung, Indonesia: CV Alfabeta, 2007.
- [49] "Repeated Measures ANOVA", <https://statistics.laerd.com/statistical-guides/repeated-measures-anova-statistical-guide.php>. Accessed : Apr. 27, 2022.

- [50] Z. Xu et al., "Towards end-to-end license plate detection and recognition: A large dataset and baseline," in Proc. Eur. Conf. Comput. Vis., in Lecture Notes in Computer Science, vol. 11217, 2018, pp. 261-277.
- [51] G. Hsu, J. Chen and Y. Chung, "Application-Oriented License Plate Recognition," in IEEE Transactions on Vehicular Technology, vol. 62, no. 2, pp. 552-561, Feb. 2013, doi: 10.1109/TVT.2012.2226218.
- [52] Y. Yuan et al., "A Robust and Efficient Approach to License Plate Detection," in IEEE Transactions on Image Processing, vol. 26, no. 3, pp. 1102-1114, March 2017, doi: 10.1109/TIP.2016.2631901.
- [53] Siddhant Baldota, "How YOLOv5 solved an ambiguity encountered by YOLOv3", <https://towardsdatascience.com/indian-car-license-plate-detection-using-yolo-v5-ae2574578175>, accessed: Mar 27, 2022.
- [54] M. Kuhn and K. Johnson, *Applied Predictive Modeling*, New York, USA: Springer, 2018.
- [55] B. Shi, M. Yang, X. Wang, P. Lyu, C. Yao and X. Bai, "ASTER: An Attentional Scene Text Recognizer with Flexible Rectification," in IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 41, no. 9, pp. 2035-2048, 1 Sept. 2019, doi: 10.1109/TPAMI.2018.2848939.
- [56] W. Liu, C. Chen, K.Y. Wong, Z. Su and J. Han, "STAR-Net: A SpaTial Attention Residue Network for Scene Text Recognition", 2016 British Machine Vision Conference, 2016, pp. 43.1-43.13, doi: 10.5244/C.30.43.
- [57] X. Li, J. Liu and S. Zhang, "Text Recognition in Natural Scenes: A Review," 2020 International Conference on Culture-oriented ScienceHALA & Technology (ICCST), 2020, pp. 154-159, doi: 10.1109/ICCST50977.2020.00036.
- [58] Hudalizaman, "Optimalisasi Hyperparameter YOLOV3 menggunakan Metode Searching untuk Meningkatkan Mean Average Precision," Thesis, Departemen of Electrical Engineering and Information Technology, Gadjah Mada University, Yogyakarta, 2021.
- [59] I. Alwi, "Kriteria Empirik dalam Menentukan Ukuran Sampel Pada Pengujian Hipotesis Statistika dan Analisis," in FORMATIF: Jurnal Ilmiah Pendidikan MIPA, vol. 2, no. 2, pp. 140-148, 2012, doi: 10.30998/formatif.v2i2.95.
- [60] M.F.Amin and R.S.Wahono, "Penerapan Reduksi Region Palsu Berbasis Mathematical Morphology pada Algoritma Adaboost Untuk Deteksi Plat Nomor Kendaraan Indonesia", in Journal of Intelligent Systems, vol. 1, no. 1, pp. 9-14, Februari 2015.
- [61] A. Michael, "Pengenalan Plat Kendaraan Berbasis Android menggunakan Viola Jones dan Kohonen Neural Network," in ILKOM Jurnal Ilmiah, vol. 8, no. 2, Agustus 2016.