

## DAFTAR PUSTAKA

- Benchabane, A., & Charif, F. (2025). Enhanced COVID-19 Detection Through Combined Image Enhancement and Deep Learning Techniques. *Informatica (Slovenia)*, 49(16), 67–76. <https://doi.org/10.31449/inf.v49i16.5869>
- Chang, Y., Jung, C., Ke, P., Song, H., & Hwang, J. (2018). Automatic Contrast-Limited Adaptive Histogram Equalization with Dual Gamma Correction. *IEEE Access*, 6, 11782–11792. <https://doi.org/10.1109/ACCESS.2018.2797872>
- Feng, X., Li, G., Xu, S., Wu, W., Chen, Q., Shao, S., Liu, M., Wang, N., Zhong, C., He, Z., & Shi, S. (2021). Genomic insights into molecular adaptation to intertidal environments in the mangrove *Aegiceras corniculatum*. *New Phytologist*, 231(6), 2346–2358. <https://doi.org/10.1111/nph.17551>
- Gibbs, J. A., Mcausland, L., Robles-Zazueta, C. A., Murchie, E. H., & Burgess, A. J. (2021). A Deep Learning Method for Fully Automatic Stomatal Morphometry and Maximal Conductance Estimation. *Frontiers in Plant Science*, 12. <https://doi.org/10.3389/fpls.2021.780180>
- Gonzalez, R. C., & Woods, R. E. (2022). *Digital Image Processing*. Pearson.
- Haworth, M., Marino, G., Materassi, A., Raschi, A., Scutt, C. P., & Centritto, M. (2023). The functional significance of the stomatal size to density relationship: Interaction with atmospheric [CO<sub>2</sub>] and role in plant physiological behaviour. In *Science of the Total Environment* (Vol. 863). Elsevier B.V. <https://doi.org/10.1016/j.scitotenv.2022.160908>
- Huang Guo and Xu, L. and C. Q. and Z. X. and M. T. and Q. H. (2021). Research on Image Enhancement Model Based on Variable Order Fractional Differential CLAHE. In K. and W. C. Wu Xi and Wu (Ed.), *Quality, Reliability, Security and Robustness in Heterogeneous Systems* (pp. 209–226). Springer International Publishing.
- Jeon, J. J., Park, J. Y., & Eom, I. K. (2024). Low-light image enhancement using gamma correction prior in mixed color spaces. *Pattern Recognition*, 146. <https://doi.org/10.1016/j.patcog.2023.110001>
- Liu, H., Zhao, Z., & She, Q. (2021). Self-supervised ECG pre-training. *Biomedical Signal Processing and Control*, 70. <https://doi.org/10.1016/j.bspc.2021.103010>
- Mohanasundaram, B., Dodds, A., Kukshal, V., Jez, J. M., & Pandey, S. (2022). Distribution and the evolutionary history of G-protein components in plant and algal lineages. *Plant Physiology*, 189(3), 1519–1535. <https://doi.org/10.1093/plphys/kiac153>
- Murphy, K. M., Ludwig, E., Gutierrez, J., Gehan, M. A., & Danforth, D. (2025). Deep Learning in Image-Based Plant Phenotyping. *Annual Review of Plant Biology* Downloaded from [www.annualreviews.org](http://www.annualreviews.org). Guest, 24, 41. <https://doi.org/10.1146/annurev-arplant-070523>
- Nature Research Intelligence. (2023). *Advances in stomatal imaging and automation. Nature Methods Insights*.
- Qiu, J., Yang, Y., & Zhang, H. (2022). Automated stomata detection using YOLOv5. *Computers and Electronics in Agriculture*, 195(106834).
- Redmon, J., Divvala, S., Girshick, R., & Farhadi, A. (2016). *You Only Look Once: Unified, Real-Time Object Detection*. <http://arxiv.org/abs/1506.02640>
- ŞENGÖZ, N., YİĞİT, T., ÖZMEN, Ö., & ISIK, A. H. (2022). Importance of Preprocessing in Histopathology Image Classification Using Deep Convolutional Neural Network. *Advances in Artificial Intelligence Research*, 2(1), 1–6. <https://doi.org/10.54569/air.1016544>
- Sultana, S. N., Park, H., Choi, S. H., Jo, H., Song, J. T., Lee, J. D., & Kang, Y. J. (2021). Optimizing the experimental method for stomata-profiling automation of soybean

- leaves based on deep learning. *Plants*, 10(12).  
<https://doi.org/10.3390/plants10122714>
- Szeliski, R. (2022). *Computer Vision: Algorithms and Applications (2nd ed.)*. Springer.
- Tang, X., Sun, Z., Yang, L., Chen, Q., Liu, Z., Wang, P., & Zhang, Y. (2025). YOLOv11-AIU: a lightweight detection model for the grading detection of early blight disease in tomatoes. *Plant Methods*, 21(1). <https://doi.org/10.1186/s13007-025-01435-z>
- Utiahman, S. A., Indrabayu, & Nurtanio, I. (2025). Performance Evaluation of YOLOv8 to YOLOv11 for Accurate Detection and Classification of Stomata in Microscopic Images of Herbal Plants. *2025 Third International Conference on Networks, Multimedia and Information Technology (NMITCON)*, 1–6.  
<https://doi.org/10.1109/NMITCON65824.2025.11188393>
- Wang, W., Yuan, X., Chen, Z., Wu, X., & Gao, Z. (2021). Weak-Light Image Enhancement Method Based on Adaptive Local Gamma Transform and Color Compensation. *Journal of Sensors*, 2021. <https://doi.org/10.1155/2021/5563698>
- Wang, Y., Liu, Z., Liu, J., Xu, S., & Liu, S. (2023). *Low-Light Image Enhancement with Illumination-Aware Gamma Correction and Complete Image Modelling Network*.
- Weng, S.-E., Miaou, S.-G., & Christanto, R. (2024). *A Lightweight Low-Light Image Enhancement Network via Channel Prior and Gamma Correction*.  
<http://arxiv.org/abs/2402.18147>
- Yang, Z., Liao, Y., Chen, Z., Lin, Z., Huang, W., Liu, Y., Liu, Y., Fan, Y., Xu, J., Xu, L., & Mu, J. (2025). StomaYOLO: A Lightweight Maize Phenotypic Stomatal Cell Detector Based on Multi-Task Training. *Plants*, 14(13).  
<https://doi.org/10.3390/plants14132070>
- Yu, W., Yao, H., Li, D., Li, G., & Shi, H. (2021). Glagc: Adaptive dual-gamma function for image illumination perception and correction in the wavelet domain. *Sensors (Switzerland)*, 21(3), 1–20. <https://doi.org/10.3390/s21030845>
- Zhang, F., Ren, F., Li, J., & Zhang, X. (2022). Automatic stomata recognition and measurement based on improved YOLO deep learning model and entropy rate superpixel algorithm. *Ecological Informatics*, 68.  
<https://doi.org/10.1016/j.ecoinf.2021.101521>
- Zhang, F., Wang, B., Lu, F., & Zhang, X. (2023). Rotating Stomata Measurement Based on Anchor-Free Object Detection and Stomata Conductance Calculation. *Plant Phenomics*, 5. <https://doi.org/10.34133/plantphenomics.0106>
- Zou, Z., Shi, Z., Guo, Y., Ye, J., & Member, S. (n.d.). *Object Detection in 20 Years: A Survey*. <https://doi.org/10.48550/arXiv.1905.05055>