

DAFTAR PUSTAKA

- Akhand, M. A. H., Ayon, S. I., Shahriyar, S. A., Siddique, N., & Adeli, H. (2020). Discrete Spider Monkey Optimization for Travelling Salesman Problem. *Applied Soft Computing Journal*, 86. <https://doi.org/10.1016/j.asoc.2019.105887>
- Anami, B. S., Malvade, N. N., & Palaiah, S. (2020). Deep learning approach for recognition and classification of yield affecting paddy crop stresses using field images. *Artificial Intelligence in Agriculture*, 4, 12–20. <https://doi.org/10.1016/j.aiia.2020.03.001>
- Andrushia, A. D., & Patricia, A. T. (2020). Artificial bee colony optimization (ABC) for grape leaves disease detection. *Evolving Systems*, 11(1), 105–117. <https://doi.org/10.1007/s12530-019-09289-2>
- Anter, A. M., Hassenian, A. E., & Oliva, D. (2019). An improved fast fuzzy c-means using crow search optimization algorithm for crop identification in agricultural. *Expert Systems with Applications*, 118, 340–354. <https://doi.org/10.1016/j.eswa.2018.10.009>
- Appalanaidu, M. V., & Kumaravelan, G. (2021). Plant leaf disease detection and classification using machine learning approaches: A review. *Lecture Notes in Networks and Systems*, 171(Icicv), 515–525. https://doi.org/10.1007/978-981-33-4543-0_55
- Azim, M. A., Islam, M. K., Rahman, M. M., & Jahan, F. (2021). An effective feature extraction method for rice leaf disease classification. *Telkomnika (Telecommunication Computing Electronics and Control)*, 19(2), 463–470. <https://doi.org/10.12928/TELKOMNIKA.v19i2.16488>
- Bansal, J. C., Sharma, H., & Jadon, S. S. (2013). Artificial bee colony algorithm: A survey. *International Journal of Advanced Intelligence Paradigms*, 5(1–2), 123–159. <https://doi.org/10.1504/IJAIP.2013.054681>
- Bansal, J. C., Sharma, H., Jadon, S. S., & Clerc, M. (2014). Spider Monkey Optimization algorithm for numerical optimization. *Memetic Computing*, 6(1), 31–47. <https://doi.org/10.1007/s12293-013-0128-0>
- Batta, M. (2018). Machine Learning Algorithms - A Review. *International Journal of Science and Research (IJSR)*, 18(8), 381–386. <https://doi.org/10.21275/ART20203995>
- Bera, T., Das, A., Sil, J., & Das, A. K. (2019). A survey on rice plant disease identification using image processing and data mining techniques. In *Advances in Intelligent Systems and Computing* (Vol. 814). Springer Singapore. https://doi.org/10.1007/978-981-13-1501-5_31
- Bischl, B., Binder, M., Lang, M., Pielok, T., Richter, J., Coors, S., Thomas, J., Ullmann, T., Becker, M., Boulesteix, A. L., Deng, D., & Lindauer, M.

- (2023). Hyperparameter optimization: Foundations, algorithms, best practices, and open challenges. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 13(2). <https://doi.org/10.1002/widm.1484>
- Biswas, M., Julkar, M., Mahi, N., Faruqui, N., Akter, M., & Lecturer, L. (2019). *A Novel Inspection of Paddy Leaf Disease Classification using Advance Image Processing Techniques*. (August), 1–8. <https://www.researchgate.net/publication/336702208>
- Budiarti, L., Kartahadimadja, J., Sari, M. F., & Ahyuni, D. (2021). Keanekaragaman Artropoda Predator di Agroekosistem Sawah pada Berbagai Galur Padi Politeknik Negeri Lampung. *AGROSCRIPT: Journal of Applied Agricultural Sciences*, 3(1). <https://doi.org/10.36423/agroscript.v3i1.663>
- CORINNA CORTES, V. V. (1995). Experimental Study on Seismic Behavior of Lightweight Concrete-Filled Cold-Formed Steel Shear Walls Strengthened Using Horizontal Reinforcement. *Machine Learning*, 20(2995), 273–297. <https://doi.org/10.1080/13632469.2022.2162630>
- Effendi, K., Munif, A., & Winasa, I. W. (2020). Pengetahuan, Sikap, dan Tindakan Petani Upsus dalam Mengendalikan Hama dan Penyakit Tanaman Padi. *Jurnal Ilmu Pertanian Indonesia*, 25(4), 515–523. <https://doi.org/10.18343/10.18343/jipi.25.4.515>
- Erwandari, N. (2017). IMPLEMENTASI SUSTAINABLE DEVELOPMENT GOALS (SDG's) DALAM MENINGKATKAN KETAHANAN PANGAN DI PROVINSI RIAU. *Ilmu Hubungan Internasional*, 5(3), 875–888.
- Fowler, B. (2000). A sociological analysis of the satanic verses affair. *Theory, Culture and Society*, 17(1), 39–61. <https://doi.org/10.1177/02632760022050997>
- Gayathri Devi, T., & Neelamegam, P. (2019). Image processing based rice plant leaves diseases in Thanjavur, Tamilnadu. *Cluster Computing*, 22, 13415–13428. <https://doi.org/10.1007/s10586-018-1949-x>
- Ghasab, A. J., Khamis, M., Mohammad, S., Fariman, F. J., & Hessam. (2015). Feature decision-making ant colony optimization system for an automated recognition of plant species. *Expert Systems with Applications*, 42(5), 2361–2370. <https://doi.org/10.1016/j.eswa.2014.11.011>
- Gulo, W., Harahap, N., & Basri, A. H. H. (2018). Perspektif Generasi Muda Terhadap Usaha Bidang Pertanian Pangan di Kecamatan Moro'o Kabupaten Nias Barat. *Agrica Ekstensi*, 12, 60–71.
- HAM, K. (2012). Pangan Dan Nutrisi , Serta Mempromosikan Pertanian Berkelanjutan. *Menghentikan, Tujuan Asasi, Hak Dasar, Manusia*, (12), 1–9.
- Hasan, M. J., Mahbub, S., Alom, M. S., & Abu Nasim, M. (2019). Rice Disease

Identification and Classification by Integrating Support Vector Machine with Deep Convolutional Neural Network. *1st International Conference on Advances in Science, Engineering and Robotics Technology 2019, ICASERT 2019, 2019(Icasert)*, 1–6. <https://doi.org/10.1109/ICASERT.2019.8934568>

Houssein, E. H., Gad, A. G., Hussain, K., & Suganthan, P. N. (2021). Major Advances in Particle Swarm Optimization: Theory, Analysis, and Application. *Swarm and Evolutionary Computation*, 63(March 2020), 100868. <https://doi.org/10.1016/j.swevo.2021.100868>

Hua, W., & Learning, A. R. (2010). 2nd International Conference on Information Engineering and Computer Science - Proceedings, ICIECS 2010. *2nd International Conference on Information Engineering and Computer Science - Proceedings, ICIECS 2010*.

Jain, N. K., Nangia, U., & Jain, J. (2018). A Review of Particle Swarm Optimization. *Journal of The Institution of Engineers (India): Series B*, 99(4), 407–411. <https://doi.org/10.1007/s40031-018-0323-y>

Jayanthi, M. G., & Shashikumar, D. R. (2019). A Model for Early Detection of Paddy Leaf Disease using Optimized Fuzzy Inference System. *Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019, (Icssit)*, 206–211. <https://doi.org/10.1109/ICSSIT46314.2019.8987955>

Kartikeyan, P., & Shrivastava, G. (2021). Review on Emerging Trends in Detection of Plant Diseases using Image Processing with Machine Learning. *International Journal of Computer Applications*, 174(11), 39–48. <https://doi.org/10.5120/ijca2021920990>

Kaur, B., Sharma, T., Goyal, B., & Dogra, A. (2020). A genetic algorithm based feature optimization method for citrus HLB disease detection using machine learning. *Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020, (Icssit)*, 1052–1057. <https://doi.org/10.1109/ICSSIT48917.2020.9214107>

Kulkarni, V. Y. (2013). *Random Forest Classifiers : A Survey and Future Research Directions*. 36(1), 1144–1153.

Kumar, P. S. K., Sumithra, M. G., & Saranya, N. (2019). Artificial bee colony-based fuzzy c means (ABC-FCM) segmentation algorithm and dimensionality reduction for leaf disease detection in bioinformatics. *Journal of Supercomputing*, 75(12), 8293–8311. <https://doi.org/10.1007/s11227-019-02999-z>

Kurnia, D., Itqan Mazdadi, M., Kartini, D., Adi Nugroho, R., & Abadi, F. (2023). Seleksi Fitur dengan Particle Swarm Optimization pada Klasifikasi Penyakit Parkinson Menggunakan XGBoost. *Jurnal Teknologi Informasi Dan Ilmu Komputer*, 10(5), 1083–1094. <https://doi.org/10.25126/jtiik.2023107252>

- Lamba, S., Baliyan, A., & Kukreja, V. (2023). A novel GCL hybrid classification model for paddy diseases. *International Journal of Information Technology (Singapore)*, 15(2), 1127–1136. <https://doi.org/10.1007/s41870-022-01094-6>
- Lestari, T. A. (2019). Pengamatan Penyakit-Penyakit Tanaman Sistem Jajar Legowo Observation of Paddy Diseases in The Vilage of Sako Rambutan Sub-District Banyuasin with The Jajar Legowo System. *Jurnal Ilmiah Sinus (JIS)*.
- Liu, Y., Wang, Y., & Zhang, J. (2012). *New Machine Learning Algorithm : Random Forest*. 246–252.
- Louppe, G. (2015). *Understanding Random Forests: From Theory to Practice*. (July). <http://arxiv.org/abs/1407.7502>
- Mahapatra, S., & Sahu, S. S. (2022). ANOVA-particle swarm optimization-based feature selection and gradient boosting machine classifier for improved protein–protein interaction prediction. *Proteins: Structure, Function and Bioinformatics*, 90(2), 443–454. <https://doi.org/10.1002/prot.26236>
- Meiriyama, M., Devella, S., & Adelfi, S. M. (2022). Klasifikasi Daun Herbal Berdasarkan Fitur Bentuk dan Tekstur Menggunakan KNN. *JATISI (Jurnal Teknik Informatika Dan Sistem Informasi)*, 9(3), 2573–2584. <https://doi.org/10.35957/jatisi.v9i3.2974>
- Nasteski, V. (2017). An overview of the supervised machine learning methods. *Horizons.B*, 4(December 2017), 51–62. <https://doi.org/10.20544/horizons.b.04.1.17.p05>
- Neware, S. (2022). Paddy plant leaf diseases identification using machine learning approach. *International Journal of Health Sciences*, 6(April), 10467–10472. <https://doi.org/10.53730/ijhs.v6ns1.7522>
- Nisar, N., Awasthi, A., Chhabra, M., & Abidi, A. I. (2020). Image based recognition of plant leaf diseases: A review. *Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020*, 373–378. <https://doi.org/10.1109/I-SMAC49090.2020.9243434>
- Nugroho, A. K., & Permadi, I. (2019). Ant Colony Optimization Untuk Menyeleksi Fitur Dan Klasifikasi Artikel. *Simetris: Jurnal Teknik Mesin, Elektro Dan Ilmu Komputer*, 10(1), 223–232. <https://doi.org/10.24176/simet.v10i1.2944>
- Parven, N., Rashiduzzaman, M., Sultana, N., Rahman, M. T., & Jabiullah, M. I. (2020). Detection and Recognition of Paddy Plant Leaf Diseases using Machine Learning Technique. *International Journal of Innovative Technology and Exploring Engineering*, 9(5), 634–638. <https://doi.org/10.35940/ijitee.e2509.039520>

- Patil, N. S. (2021). Identification of Paddy Leaf Diseases using Evolutionary and Machine Learning Methods. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(2), 1672–1686. <https://doi.org/10.17762/turcomat.v12i2.1503>
- Payal, & Kukana, P. (2020). Hybrid Machine Learning Algorithm-Based Paddy Leave Disease Detection System. *Proceedings - International Conference on Smart Electronics and Communication, ICOSEC 2020*, (Icosec), 512–519. <https://doi.org/10.1109/ICOSEC49089.2020.9215367>
- Petchiammal, Kiruba, B., Murugan, & Arjunan, P. (2023). Paddy Doctor: A Visual Image Dataset for Automated Paddy Disease Classification and Benchmarking. In *ACM International Conference Proceeding Series* (Vol. 1, Number 1). Association for Computing Machinery. <https://doi.org/10.1145/3570991.3570994>
- Probst, P., Wright, M. N., & Boulesteix, A. L. (2019). Hyperparameters and tuning strategies for random forest. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 9(3), 1–19. <https://doi.org/10.1002/widm.1301>
- Purba, Z. (2018). Regresi linier berganda kelembaban udara dan intensitas cahaya matahari terhadap produksi tanaman padi di perkotaan. *Pembangunan Perkotaan*, 6(1991), 112–117.
- Ramesh, S., & Vydeki, D. (2019). Application of machine learning in detection of blast disease in south indian rice crops. *Journal of Phytology*, 11, 31–37. <https://doi.org/10.25081/jp.2019.v11.5476>
- Ridhovan, A., Suharso, A., & Rozikin, C. (2022). Disease Detection in Banana Leaf Plants using DenseNet and Inception Method. *Jurnal RESTI (Rekayasa Sistem Dan Teknologi Informasi)*, 6(5), 710–718. <http://jurnal.iaii.or.id/index.php/RESTI/article/view/4202>
- Rozikin, C., Buono, A., Wahjuni, S., & Arif, C. (2023). *Ingénierie des Systèmes d'Information ANOVA-Artificial Bee Colony Algorithm-Driven Feature Selection for Classifying Downy Mildew Severity in Melon Leaves*. 28(6), 1515–1523.
- Sachar, S., & Kumar, A. (2021). Survey of feature extraction and classification techniques to identify plant through leaves. *Expert Systems with Applications*, 167, 114181. <https://doi.org/10.1016/j.eswa.2020.114181>
- Saha, S., & Ahsan, S. M. M. (2021). Rice Disease Detection using Intensity Moments and Random Forest. *2021 International Conference on Information and Communication Technology for Sustainable Development, ICICT4SD 2021 - Proceedings*, 166–170. <https://doi.org/10.1109/ICICT4SD50815.2021.9396986>

- Sakhamuri, S., & Kumar, K. K. (2022). Deep Learning and Metaheuristic Algorithm for Effective Classification and Recognition of Paddy Leaf Diseases. *Journal of Theoretical and Applied Information Technology*, 100(4), 1127–1137.
- Saradhi, T. V. (2025). A Study on Hyperparameter Tuning in Support Vector Machines and its Impact on Model Accuracy. *Global Journal of Engineering Innovations and Interdisciplinary Research*, 5(1), 1–6. <https://doi.org/10.33425/3066-1226.1063>
- Sari, W. (2019). INVENTARISASI PENYAKIT TANAMAN PADI PANDANWANGI (*Oryza sativa* var. Aromatic) DI BEBERAPA SENTRA PENANAMAN PADI PANDANWANGI KABUPATEN CIANJUR. *Agroscience (Agsci)*, 9(2), 116. <https://doi.org/10.35194/agsci.v9i2.777>
- Sengupta, S., Basak, S., & Peters, R. A. (2019). Particle Swarm Optimization: A Survey of Historical and Recent Developments with Hybridization Perspectives. *Machine Learning and Knowledge Extraction*, 1(1), 157–191. <https://doi.org/10.3390/make1010010>
- Sharif, M., Khan, M. A., Iqbal, Z., Azam, M. F., Lali, M. I. U., & Javed, M. Y. (2018). Detection and classification of citrus diseases in agriculture based on optimized weighted segmentation and feature selection. *Computers and Electronics in Agriculture*, 150(May 2017), 220–234. <https://doi.org/10.1016/j.compag.2018.04.023>
- Sharma, H., Hazrati, G., & Bansal, J. C. (2019). Spider monkey optimization algorithm. In *Studies in Computational Intelligence* (Vol. 779). Springer International Publishing. https://doi.org/10.1007/978-3-319-91341-4_4
- Sharma, R., Das, S., Gourisaria, M. K., Rautaray, S. S., & Pandey, M. (2020). A Model for Prediction of Paddy Crop Disease Using CNN. In *Advances in Intelligent Systems and Computing* (Vol. 1119). Springer Singapore. https://doi.org/10.1007/978-981-15-2414-1_54
- Singh, V. (2019). Sunflower leaf diseases detection using image segmentation based on particle swarm optimization. *Artificial Intelligence in Agriculture*, 3(May 2017), 62–68. <https://doi.org/10.1016/j.aiia.2019.09.002>
- Snoek, J., Larochelle, H., & Adams, R. P. (2012). Practical Bayesian optimization of machine learning algorithms. *Advances in Neural Information Processing Systems*, 4, 2951–2959.
- Sreevallabhadev, R. (2020). An improved machine learning algorithm for predicting blast disease in paddy crop. *Materials Today: Proceedings*, 33(xxxx), 682–686. <https://doi.org/10.1016/j.matpr.2020.05.802>
- Susanti, V., Dwi Nurcahyanti, S., & Masnilah, D. R. (2018). Perkembangan Penyakit dan Pertumbuhan Lima Varietas Padi (*Oryza sativa* L.) dengan

Sistem Tanam Blok The Development of a Disease and Growth Five Varieties of Rice (*Oryza sativa* L.) with a System of Planting Block. *J. Agrotek. Trop*, 7(1), 8–19.

Susanto, A., Prasetyo, A. E., Priwiratama, H., & Syarovi, M. (2020). Laju fotosintesis pada tanaman kelapa sawit terinfeksi karat daun *Cephaleuros virescens*. *Jurnal Fitopatologi Indonesia*, 16(1), 21–29. <https://doi.org/10.14692/jfi.16.1.21-29>

Taujuddin, N. S. A. M., Samuri, I. S., Ibrahim, R., Sari, S., Ghani, A. R. A., & Rahman, M. A. (2021). Brown Spot and Narrow Brown Spot Paddy Disease Detection using Color Slicing Method. *Evolution in Electrical and Electronic Engineering*, 2(1), 45–54. <http://publisher.uthm.edu.my/periodicals/index.php/eeee>

Thyagarajan, K. K., & Kiruba Raji, I. (2019). A Review of Visual Descriptors and Classification Techniques Used in Leaf Species Identification. *Archives of Computational Methods in Engineering*, 26(4), 933–960. <https://doi.org/10.1007/s11831-018-9266-3>

Vanneschi, L., & Silva, S. (2023). Bayesian Learning. In *Natural Computing Series*. https://doi.org/10.1007/978-3-031-17922-8_9

Vapnik, & N., V. (1995). The Nature of Statistical Learning. In *Theory* (p. 334).

VijayaLakshmi, B., & Mohan, V. (2016). Kernel-based PSO and FRVM: An automatic plant leaf type detection using texture, shape, and color features. *Computers and Electronics in Agriculture*, 125, 99–112. <https://doi.org/10.1016/j.compag.2016.04.033>

Vishnoi, V. K., Kumar, K., & Kumar, B. (2020). Plant disease detection using computational intelligence and image processing. In *Journal of Plant Diseases and Protection* (Number 0123456789). Springer Berlin Heidelberg. <https://doi.org/10.1007/s41348-020-00368-0>

Wainer, J., & Cawley, G. (2017). Empirical evaluation of resampling procedures for optimising SVM hyperparameters. *Journal of Machine Learning Research*, 18, 1–35.

Walascha, A., Febriana, A., Saputri, D., Sri Nur Haryanti, D., Tsania, R., & Sanjaya, Y. (2022). Review Artikel: Inventarisasi Jenis Penyakit yang Menyerang Daun Tanaman Padi (*Oryza sativa* L.). *Prosiding Seminar Nasional Biologi*, 1(2), 471–478. <https://seminas.biologi.fmipa.unp.ac.id/index.php/prosiding/article/view/150>

Yustiningsih, M. (2019). Intensitas Cahaya dan Efisiensi Fotosintesis pada Tanaman Naungan dan Tanaman Terpapar Cahaya Langsung. *Bio-Edu: Jurnal Pendidikan Biologi*, 4(2), 44–49. <https://doi.org/10.32938/jbe.v4i2.385>

Zhao, J., Fang, Y., Chu, G., Yan, H., Hu, L., & Huang, L. (2020). Identification of leaf-scale wheat powdery mildew (*Blumeria Graminis* F. sp. tritici) combining hyperspectral imaging and an SVM classifier. *Plants*, 9(8), 1–13. <https://doi.org/10.3390/plants9080936>



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