

DAFTAR PUSTAKA

- AAK. (1990). *Budidaya Tanaman Padi*. Yogyakarta: Penerbit Kanisius.
- Alam, M., Wang, J. F., Guangpei, C., Yunrong, L., & Chen, Y. (2021). Convolutional Neural Network for the Semantic Segmentation of Remote Sensing Images. *Mobile Networks and Applications*, 26(1), 200–215. <https://doi.org/10.1007/s11036-020-01703-3>
- Amran, M. A. (2023). *Dasar Dasar Penginderaan Jauh Satelit*. Makassar: Penerbit Nas Media Pustaka.
- Archana, R., & Jeevaraj, P. S. E. (2024). Deep learning models for digital image processing: a review. *Artificial Intelligence Review*, 57(1). <https://doi.org/10.1007/s10462-023-10631-z>
- Arjasakusuma, S. (2015). *Estimasi Produksi Padi Ditinjau dari Aspek Kesesuaian Lahan Menggunakan Analisis Decision Tree dengan Menggunakan Citra ALI di Sebagian Kab. Magelang, Jawa Tengah*. Yogyakarta: Universitas Gadjah Mada.
- Attri, I., Awasthi, L. K., Sharma, T. P., & Rathee, P. (2023). A review of deep learning techniques used in agriculture. In *Ecological Informatics* (Vol. 77). Elsevier B.V. <https://doi.org/10.1016/j.ecoinf.2023.102217>
- Avanidou, K., Alexandridis, T., Kavrouidakis, D., & Kizos, T. (2023). Development of a multi scale interactive web-GIS system to monitor farming practices: A case study in Lemnos Island, Greece. *Smart Agricultural Technology*, 5. <https://doi.org/10.1016/j.atech.2023.100313>
- Azra, A. A. (2024). Analisis Sebaran Ruang Terbuka Hijau (RTH) Publik Menggunakan Metode Sistem Informasi Geografis (SIG) di Kabupaten Sidoarjo. *Elipsoida: Jurnal Geodesi dan Geomatika*, 7(1), 1-13.
- BPS. (2023). *Luas Panen dan Produksi Padi di Indonesia 2023 (Angka Sementara)*. Jakarta: Badan Pusat Statistik Indonesia.
- BPS. (2024). *Kabupaten Klaten Dalam Angka 2024*. Klaten: Badan Pusat Statistik Kabupaten Klaten.
- BPS. (2024). *Luas Panen dan Produksi Padi di Provinsi Jawa Tengah 2023 (Angka Tetap)*. Semarang: Badan Pusat Statistik Provinsi Jawa Tengah.
- BPS. (2024). *Statistik Indonesia 2024*. Jakarta: Badan Pusat Statistik Indonesia.
- Campbell, J.B (1983). *Mapping the land: aerial imagery for land use information*. Washington, DC: Association of American Geographers.

- Chen, C. F., Son, N. T., Chang, L. Y., & Chen, C. R. (2011). Classification of rice cropping systems by empirical mode decomposition and linear mixture model for time-series MODIS 250 m NDVI data in the Mekong Delta, Vietnam. *International Journal of Remote Sensing*, 32(18), 5115–5134. <https://doi.org/10.1080/01431161.2010.494639>
- Chen, C., Yuan, X., Gan, S., Luo, W. D., Bi, R., Li, R. B., & Gao, S. (2024). A new vegetation index based on UAV for extracting plateau vegetation information. *International Journal of Applied Earth Observation and Geoinformation*, 128. <https://doi.org/10.1016/j.jag.2024.103668>
- Chen, J., Chen, J., Zhang, D., Sun, Y., & Nanekharan, Y. A. (2020). Using deep transfer learning for image-based plant disease identification. *Computers and Electronics in Agriculture*, 173. <https://doi.org/10.1016/j.compag.2020.105393>
- Chowdhury, M. S. (2024). Comparison of accuracy and reliability of random forest, support vector machine, artificial neural network and maximum likelihood method in land use/cover classification of urban setting. *Environmental Challenges*, 14. <https://doi.org/10.1016/j.envc.2023.100800>
- Costa, H., Almeida, D., Vala, F., Marcelino, F., & Caetano, M. (2018). Land cover mapping from remotely sensed and auxiliary data for harmonized official statistics. *ISPRS International Journal of Geo-Information*, 7(4). <https://doi.org/10.3390/ijgi7040157>
- Danoedoro, P., Widayani, P., Hidayati, I. N., Kartika, C. S. D., & Alfani, F. (2024). Incorporating landscape ecological approach in machine learning classification for agricultural land-use mapping based on a single date imagery. *Geocarto International*, 39(1). <https://doi.org/10.1080/10106049.2024.2356844>
- Danoedoro, P. (2015). Pengaruh jumlah dan metode pengambilan titik sampel penguji terhadap tingkat akurasi klasifikasi citra digital penginderaan jauh. *Prosiding Simposium Nasional Sains Geoinformasi 4(1)*, Universitas Gadjah Mada.
- Danoedoro, P. (2012). *Pengantar Penginderaan Jauh Digital*. Yogyakarta: Penerbit Andi.
- Darwin, B., Dharmaraj, P., Prince, S., Popescu, D. E., & Hemanth, D. J. (2021). Recognition of bloom/yield in crop images using deep learning models for smart agriculture: A review. *Agronomy*, 11(4), 646. <https://doi.org/10.3390/agronomy11040646>
- ESA. (2015). *Sentinel-2 User Handbook*. ESA Standard Document (2nd ed.). European Space Agency.

- FAO. (2011). *State of the World's Forests 2011*. Rome: Food and Agriculture Organization of the United Nations.
- Farahnakian, F., Heikkonen, J., & Jafarzadeh, P. (2023). Deep Learning and Computer Vision in Remote Sensing. In *Remote Sensing*. MDPI. www.mdpi.com/journal/remotesensing
- Gonzalez, R. C., & Woods, R. E. (2002). *Digital Image Processing*. Pearson Education Inc. Publish as Prentice-Hall.
- Goodchild, M. F. (1992). Integrating GIS and Spatial Data Analysis: Problems and Possibilities. *International Journal of Geographical Information Systems*, 6(5), 407-423.
- Hardjowigeno, S., Agus, F., Adimihardja, A., Fagi, A., & Hartatik, W. (2004). *Tanah Sawah dan Teknik Pengelolaannya*. Bogor: Pusat Penelitian dan Pengembangan Tanah dan Agroklimat.
- Haryadi, N. T., & Purnomo, H. (2019). *Rekayasa Agroekosistem dan Konservasi Musuh Alami*. Jember: UPT Percetakan & Penerbitan Universitas Jember.
- Helmud, E. (2021). Optimasi Basis Data Oracle Menggunakan Complex View Studi Kasus: PT. Berkas Optimis Sejahtera (PT.BOS) Pangkalpinang. *Jurnal Informanika*, 7(1), 80-86.
- Herdiyanti, H., Sulistyono, E., & Purwono. (2021). Pertumbuhan dan Produksi Beberapa Varietas Padi (*Oryza sativa* L.) pada Berbagai Interval Irigasi. *Jurnal Agronomi Indonesia (Indonesian Journal of Agronomy)*, 49(2), 129–135. <https://doi.org/10.24831/jai.v49i2.36558>
- Hernawati, R., Harto, A. B., & Sari, D. K. (2017). Pemetaan Pola Tanam dan Kalender Tanam Padi Sawah menggunakan Teknik Penginderaan Jauh. *Reka Geomatika*, 2017(2), 91-101.
- Heryadi, Y., & Irwansyah, E. (2020). *Deep Learning: Aplikasinya di Bidang Geospasial*. AWI Technology Press.
- Hoogenboom, G. (2000). Contribution of Agrometeorology to The Simulation of Crop Production and Its Applications. *Agricultural and Forest Meteorology* 103, 137-157.
- Imang, N. (2021). *Agroekosistem dan Pertanian Berkelanjutan di Daerah Tropis (Agroecosystem and Sustainable Agriculture in the Tropics)*. Samarinda: Mulawarman University Press.

- Innawati, I., Milangoni, E., Febriadi, I., & Soekamto, M. H. (2024). A, of Perubahan Luasan Mangrove Menggunakan Data Citra Satelit di Distrik Manokwari Selatan Kabupaten Manokwari: Perubahan Luasan Mangrove Menggunakan Data Citra Satelit di Distrik Manokwari Selatan Kabupaten Manokwari. *Median: Jurnal Ilmu Ilmu Eksakta*, 16(1), 22-36. <https://doi.org/10.33506/md.v16i1.3272>
- Jensen, J. R. (2005). *Introductory Digital Image Processing* (3rd ed.). New Jersey: Prentice Hall.
- Kamilaris, A., & Prenafeta-Boldú, F. X. (2018). Deep learning in agriculture: A survey. In *Computers and Electronics in Agriculture* (Vol. 147, pp. 70–90). Elsevier B.V. <https://doi.org/10.1016/j.compag.2018.02.016>
- Kampffmeyer, M., Salberg, A., Jenssen, R. (2017). Urban Land Cover Classification with Missing Data Using Deep Convolutional Neural Networks. *IEEE International Geoscience and Remote Sensing Symposium* (pp. 5161-5164).
- Kementerian Pertanian. (2023). *Statistik Konsumsi Pangan 2023*. Jakarta: Kementerian Pertanian Indonesia.
- Khoirani, L., Ariansyah, R., & Supiyandi, S. (2024). Aplikasi Pengolahan Citra Untuk Peningkatan Deteksi Tepi Melalui Segmentasi Citra. Mars: *Jurnal Teknik Mesin, Industri, Elektro Dan Ilmu Komputer*, 2(3), 196-203.
- Killa, Y. M., Simanjuntak, B. H., & Widyawati, N. (2018). Penentuan Pola Tanam Padi dan Jagung Berbasis Neraca Air di Kecamatan Lewa Kabupaten Sumba Timur. *AgriTECH*, 38(4), 469. <https://doi.org/10.22146/agritech.38896>
- Kushardono, D. (2017). *Klasifikasi Digital pada Penginderaan Jauh*. Bogor: Penerbit IPB Press.
- Li, Z., Liu, F., Yang, W., Peng, S., & Zhou, J. (2022). A Survey of Convolutional Neural Networks: Analysis, Applications, and Prospects. *IEEE Transactions on Neural Networks and Learning Systems*, 33(12), 6999–7019. <https://doi.org/10.1109/TNNLS.2021.3084827>
- Lillesand, T., Kiefer, R. W., & Chipmans, J. (2015). *Remote Sensing and Image Interpretation* (7th ed.). New York: John Wiley & Sons.
- Liu, J. G., & Mason, P. J. (2016). *Image Processing and GIS for Remote Sensing: Techniques and Applications* (2nd ed.). Oxford: Wiley-Blackwell.
- Liu, Q., Yan, Q., Tian, J., & Yuan, K. (2021). Key Technologies and Applications in Intelligent Agriculture. *Journal of Physics: Conference Series*, 1757(1). <https://doi.org/10.1088/1742-6596/1757/1/012059>

- Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). *Geographic Information Systems and Science* (4th ed.). New York: Wiley.
- Mac Hattie, L.B., & Schnelle, F. (1974). *An Introduction to Agrotopoclimatology*. World Meteorological Organization.
- Makarim, A. K., & Suhartatik, D. E. (2009). Morfologi dan Fisiologi Tanaman Padi. *Balai Besar Penelitian Tanaman Padi*, 11, 295-330.
- Manihuruk, E. M., Harianto, H., & Kusnadi, N. (2018). Analisis Faktor Yang Memengaruhi Petani Memilih Pola Tanam Ubi Kayu Serta Efisiensi Teknis Di Kabupaten Lampung Tengah. *Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian Dan Agribisnis*, 17(2), 139–150. <https://doi.org/10.31186/jagrisep.17.2.139-150>
- Murdiyati, S. R., Danoedoro, P., & Jatmiko, R. H. (2010). Integrasi Transformasi Spektral Citra Landsat ETM+ dan SIG Untuk Pemetaan Pola Rotasi Tanam Lahan Sawah Kabupaten dan Kota Semarang Serta Daerah Sekitarnya di Jawa Tengah. *Majalah Geografi Indonesia*, 24(2), 121-141.
- Murti, S. H. (2014). *Pemodelan Spasial untuk Estimasi Produksi Padi dan Tembakau Berdasarkan Citra Multi-Resolusi (Kasus Untuk Produksi Padi di Kabupaten Wonosobo dan Sragen, serta Produksi Tembakau di Kabupaten Temanggung, Provinsi Jawa Tengah)*. Yogyakarta: Universitas Gadjah Mada.
- Musu, W., Ibrahim, A., & Heriadi, H. (2021). Pengaruh Komposisi Data Training dan Testing terhadap Akurasi Algoritma C4. 5. *Seminar Ilmiah Sistem Informasi dan Teknologi Informasi*, 10(1). 186-195.
- Nguyen, T. T. H., de Bie, C. A. J. M., Ali, A., Smaling, E. M. A., & Chu, T. H. (2012). Mapping the irrigated rice cropping patterns of the Mekong delta, Vietnam, through hyper-temporal spot NDVI image analysis. *International Journal of Remote Sensing*, 33(2), 415–434. <https://doi.org/10.1080/01431161.2010.532826>
- Pertami, R. R. D., Eliyatiningsih, E., Salim, A., & Basuki, B. (2022). Optimization of Land Use Based on Land Suitability Class for the Development of Red Chillies in Jember Regency. *Jurnal Tanah Dan Sumberdaya Lahan*, 9(1), 163–170. <https://doi.org/10.21776/ub.jtsl.2022.009.1.18>
- Purhartanto, L. N., Danoedoro, P., & Wicaksono, P. (2019). Kajian Transformasi Indeks Vegetasi Citra Satelit Sentinel-2A Untuk Estimasi Produksi Daun Kayu Putih Menggunakan Linear Spectral Mixture Analysis. *Jurnal Nasional Teknologi Terapan (JNTT)*, 3(1), 47-70.

- Purwaningsih, T., Kristanto, B. A., & Karno, K. (2018). Efektifitas aplikasi *Beauveria bassiana* sebagai upaya pengendalian wereng batang coklat dan walang sangit pada tanaman padi di Desa Campursari Kecamatan Bulu Kabupaten Temanggung. *Journal of Agro Complex*, 2(1), 12-18. <https://doi.org/10.14710/joac.2.1.12-18>
- Rahmawati, L., Febrian, W. D., Fachruzzaki, F., Mardiyati, S., Lengam, R., & Suarnatha, I. P. D. (2024). Pengembangan Sistem Informasi Geografis (SIG) Untuk Analisis Spasial dalam Pengambilan Keputusan. *Jurnal Review Pendidikan Dan Pengajaran*, 7(2), 4058-4068.
- Risser, P. G. (1987). Landscape Ecology: State of The Art. *Landscape Heterogeneity and Disturbance*, 3-14.
- Sambodo, K. A., Rahayu, M. I., Indriasari, N., & Natsir, M. (2014). Klasifikasi Hutan-Non Hutan Data Alos Palsar Menggunakan Metode Random Forest. *Prosiding Seminar Nasional Penginderaan Jauh 2014* (pp. 120-127), LAPAN.
- Saputra, D., Ekaputra, E. G., & Santosa, S. (2021). Analisis Pola Tanam dan Kalender Tanam Padi Sawah Menggunakan Data Citra Landsat 8 OLI TIRS di Daerah Irigasi Batang Anai Kabupaten Padang Pariaman. *Jurnal Teknologi Pertanian Andalas*, 25(1), 33-45.
- Simatupang, R. E., & Pangaribuan, E. E. B. (2021). Pola Tanam. Dalam Masganti., Simatupang, R. E., Noor, M., Mukhlis., Maftu'ah, E., Alwi, M., & Hasbianto, A. *Pertanian Rawa Pasang Surut Sulfat Masam* (pp.187-209). Depok: PT. Rajagrafindo Persada.
- Soeprbowati, T. R. (2011). Ekologi Bentang Lahan. *BIOMA*, 13(2), 46-53.
- Sunil, G. C., Zhang, Y., Koparan, C., Ahmed, M. R., Howatt, K., & Sun, X. (2022). Weed and crop species classification using computer vision and deep learning technologies in greenhouse conditions. *Journal of Agriculture and Food Research*, 9. <https://doi.org/10.1016/j.jafr.2022.100325>
- Surowinoto, S. (1982). *Budidaya Tanaman Padi*. Jakarta: Gramedia Pustaka Utama.
- Suryanto, A. (2019). *Pola Tanam*. Universitas Brawijaya Press.
- Svoboda, T., Kybic, J., & Hlavac, V. (2007). *Image Processing, Analysis & Machine Vision-a MATLAB Companion*. Thomson Learning.
- Verstappen, H. T. (1983). *Applied Geomorphology: Geomorphological Surveys for Environmental Development*. New York: Elsevier Science Publishing Company Inc.

- Vink, A.P.A. (1983). *Landscape Ecology and Land Use* in Davidson, D.A. (Ed). Longman. London
- Volke, M. I., & Abarca-Del-Rio, R. (2020). Comparison of machine learning classification algorithms for land cover change in a coastal area affected by the 2010 Earthquake and Tsunami in Chile. *Natural Hazards Earth System Sciences*. <https://doi.org/10.5194/nhess-2020-41>
- Wahyunto, Hikmatullah, Suryani, E., Tafakresnanto, C., Ritung, S., Mulyani, A., Sukarman, Nugroho, K., Sulaeman, Y., Apriyana, Y., Suciantini, Pramudia, A., Suparto, Subandiono, R.E., Sutriadi, T., & Nursyamsi, D. (2016). *Petunjuk Teknis Pedoman Penilaian Kesesuaian Lahan untuk Komoditas Pertanian Strategis Tingkat Semi Detail Skala 1:50.000*. Bogor: Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Badan Penelitian dan Pengembangan Pertanian.
- Wang, A., Xu, Y., Wei, X., & Cui, B. (2020). Semantic Segmentation of Crop and Weed using an Encoder-Decoder Network and Image Enhancement Method under Uncontrolled Outdoor Illumination. *IEEE Access*, 8, 81724–81734. <https://doi.org/10.1109/ACCESS.2020.2991354>
- Wirdasari, D., Syaputra, T., & Herriyance. (2014). Pemfilteran Spasial Linier Dalam Meningkatkan Kualitas Citra. *Jurnal SAINTIKOM*, 13(3), 218.
- Yusdja, Y. (1985). Latar Belakang dan Metodologi Penelitian Patanas: Jawa Barat, Sumatera Barat, Sulawesi Selatan dan Jawa Timur. *Forum Penelitian Agro Ekonomi*, 3(2), 1-4.
- Zhao, X., Wang, L., Zhang, Y., Han, X., Deveci, M., & Parmar, M. (2024). A review of convolutional neural networks in computer vision. *Artificial Intelligence Review*, 57(4). <https://doi.org/10.1007/s10462-024-10721-6>
- Zheng, Y. Y., Kong, J. L., Jin, X. B., Wang, X. Y., Su, T. L., & Zuo, M. (2019). CropDeep: The Crop Vision Dataset for Deep-Learning-Based Classification and Detection in Precision Agriculture. *Sensors*, 19(5), 1058.
- Zhong, L., Guo, X., Xu, Z., & Ding, M. (2021). Soil properties: Their prediction and feature extraction from the LUCAS spectral library using deep convolutional neural networks. *Geoderma*, 402. <https://doi.org/10.1016/j.geoderma.2021.115366>