

DAFTAR PUSTAKA

- Aboyomi, D. D., & Daniel, C. (2023). A Comparative Analysis of Modern Object Detection Algorithms: YOLO vs. SSD vs. Faster R-CNN. *ITEJ (Information Technology Engineering Journals)*, 8(2), 96-106. <https://doi.org/10.24235/itej.v8i2.123>
- Adawiyah, R. (2023). Eksplorasi kapasitas pengkodean amplitudo untuk model quantum machine learning. *Informatika: Jurnal Teknik Informatika dan Multimedia*, 3(1), 38-58. <https://doi.org/10.51903/informatika.v3i1.232>
- Agustina, F., & Sukron, M. (2022). Deteksi Kematangan Buah Pepaya Menggunakan Algoritma YOLO Berbasis Android. *Jurnal Ilmiah Infokam*, 18(2), 70-78.
- Aji, A. R., & Djurdjani. (2022). Perbandingan Volume Stockpile Batu Bara Hasil UAV Fotogrametri dan UAV Lidar. *JGISE: Journal of Geospatial Information Science and Engineering*, 5(2), 132-138. <https://doi.org/10.22146/jgise.78295>
- Alshawabkeh, Y., Baik, A., & Miky, Y. (2021). Integration of laser scanner and photogrammetry for heritage BIM enhancement. *ISPRS International Journal of Geo-Information*, 10(5), 316. <https://doi.org/10.3390/ijgi10050316>
- Alwi, M. D., Pradjojowaty, I. S., & Arifianto, T. (2024). Penerapan Algoritma You Only Look Once (YOLO) untuk Mendeteksi Sarana Perkeretaapian. *Spirit*, 16(2), 280-291.
- Amriza, R. N., & Supriyadi, D. (2021). Komparasi Metode Machine Learning dan Deep Learning untuk Deteksi Emosi pada Text di Sosial Media. *Jurnal JUPITER*, 13(2), 130-139.
- Anggraini, A., & Zakaria, H. (2023). Penerapan Metode Deep Learning Pada Aplikasi Pembelajaran. *JURIHUM: Jurnal Inovasi dan Humaniora*, 1(4), 452-464.
- Aprilyanto, J., & Yohannes, Y. (2023). Implementasi Arsitektur VGG-Unet Dalam Melakukan Segmentasi Keretakan pada Citra Bangunan. *MDP Student Conference (Vol. 2, No. 1, pp. 257-264)*. Palembang: Universitas Multi Data Palembang. <https://doi.org/10.35957/mdp-sc.v2i1.4311>

- Armin, E. U., Edra, A. P., Alifin, F. I., Sadidan, I., Sary, I. P., & Latifa, U. (2023). Performa Model YOLOv8 untuk Deteksi Kondisi Mengantuk pada Pengendara Mobil. *Brahmana: Jurnal Penerapan Kecerdasan Buatan*, 5(1), 67-76.
- Asriani, F., Pramudji, G., Susilawati, H., & Anggoro, F. T. (2023). Aplikasi Convolutiional Neural Networks (CNN) untuk Klasifikasi Retakan Beton. *Dinamika Rekayasa*, 19(1), 9-17.
- Azhar, K. M., Santoso, I., & Soetrisno, Y. A. (2021). Implementasi Deep Learning Menggunakan Metode Convolutional Neural Network Dan Algoritma Yolo Dalam Sistem Pendeteksi Uang Kertas Rupiah Bagi Penyandang Low Vision. *Transient J. Ilm. Tek. Elektro*, 10(3), 502-509.
- Azmi, K., Defit, S., & Sumijan, S. (2023). Implementasi convolutional neural network (CNN) untuk klasifikasi batik tanah liat sumatera barat. *Jurnal Unitek*, 16(1), 28-40.
- Barus, B. R., Prasetyo, Y., & Hani'ah. (2017). Analisis Akurasi Pemodelan 3D Menggunakan Metode Close Range Photogrammetry (CRP), Unmanned Aerial Vehicle (UAV) dan Terrestrial Laser Scanner (TLS). *Jurnal Geodesi Undip*, 6(4), 169-179.
- Bassil, A., Chapeleau, X., Leduc, D., & Abraham, O. (2020). Concrete crack monitoring using a novel strain transfer model for distributed fiber optics sensors. *Sensors*, 20(8), 220. <https://doi.org/10.3390/s20082220>
- Buah, E., Linnanen, L., Wu, H., & Kesse, M. A. (2020). Can artificial intelligence assist project developers in long-term management of energy projects? The case of CO2 capture and storage. *Energies*, 13(23), 6259. <https://doi.org/10.3390/en13236259>
- Chen, Z., & Hutchinson, T. C. (2010). Image-based framework for concrete surface crack monitoring and quantification. *Advances in Civil Engineering*, 2010(1), 215295. <https://doi.org/10.1155/2010/215295>
- Cho, S., Park, S., Cha, G., & Oh, T. (2018). Development of Image Processing for Crack Detection on Concrete Structures through Terrestrial Laser Scanning Associated with the Octree Structure. *Applied Sciences*, 8(12), 2373. <https://doi.org/10.3390/app8122373>

- Choudary, G. K., & Dey, S. (2012). Crack detection in concrete surfaces using image processing, fuzzy logic, and neural networks. *2012 IEEE fifth international conference on advanced computational intelligence (ICACI)* . Nanjing: IEEE. <https://doi.org/10.1109/ICACI.2012.6463195>
- Edvardsen, I. P., Teterina, A., Johansen, T., Myhre, J. N., Godtliebsen, F., & Bolstad, N. L. (2022). Automatic detection of the mental foramen for estimating mandibular cortical width in dental panoramic radiographs: the seventh survey of the Tromsø Study (Tromsø7) in 2015–2016. *Journal of International Medical Research*, 50(11), 030006052211351. <https://doi.org/10.1177/03000605221135147>
- Firmansyach, W. A., Hayati, U., & Wijaya, Y. A. (2023). Analisa Terjadinya Overfitting Dan Underfitting Pada Algoritma Naive Bayes Dan Decision Tree Dengan Teknik Cross Validation. *JATI (Jurnal Mahasiswa Teknik Informatika)*, 7(1), 262-269.
- Golding, V. P., Gharineiat, Z., Munawar, H. S., & Ullah, F. (2022). Crack detection in concrete structures using deep learning. *Sustainability*, 14(13), 8117. <https://doi.org/10.3390/su14138117>
- Golewski, G. (2023). The phenomenon of cracking in cement concretes and reinforced concrete structures: the mechanism of cracks formation, causes of their initiation, types and places of occurrence, and methods of detection—a review. *Buildings*, 13(3), 765. <https://doi.org/10.3390/buildings13030765>
- Hadinata, P. N., & Simanta, D. (2021). Deep Convolutional Neural Network untuk Mendeteksi Retak pada Permukaan Beton yang Memiliki Void. *Journal of Sustainable Construction*, 1(1), 45-55. <https://doi.org/10.26593/josc.v1i1.5151>
- Hamdi, F., Lapian, F., Tumpu, M., Mabui, D., Raidyarto, A., Sila, A., & Rangan, P. (2022). *Teknologi Beton*. Tohar Media.
- Hamishebahar, Y., Guan, H., So, S., & Jo, J. (2022). A comprehensive review of deep learning-based crack detection approaches. *Applied Sciences*, 12(3), 1374. <https://doi.org/10.3390/app12031374>
- Hammad, M. M. (2024). *Artificial Neural Network and Deep Learning: Fundamentals and Theory*. Damanhour University. <https://doi.org/10.13140/RG.2.2.18262.66889>

- Haque, M. I. (2024). Pemanfaatan Pesawat UAV (Unmanned Aerial Vehicle) Untuk Pembuatan Peta Citra Desa Metode Fotogrametri Dengan Studi Kasus : Desa Kalipecabean, Kecamatan Candi, Kabupaten Sidoarjo. *Jurnal Geodesi Undip*, 13(2), 495-507. <https://doi.org/10.14710/jgundip.2024.42880>
- Hartono, J., & Santoso, H. T. (2021). Kajian Kerusakan Wet Lean concrete & Concrete Pavement Pada Proyek Pembangunan Jalan Tol Balikpapan Samarinda. *Orbith: Majalah Ilmiah Pengembangan Rekayasa dan Sosial*, 17(2), 134-145.
- Hartung, R., Senger, L., & Klemm-Albert, K. (2019). Linking building information modeling and structural health monitoring for reliable railway infrastructure. *Proceedings of the 29th European Safety and Reliability Conference (ESREL)*. Research Publishing, Singapore. https://doi.org/10.3850/978-981-11-2724-3_0971-cd
- Hashim, K. A., Ahmad, A., Samad, A. M., Tahar, K. N., & Udin, W. S. (2012). Integration of Low Altitude Aerial & Terrestrial Photogrammetry Data in 3D Heritage Building Modeling. *2012 IEEE Control and System Graduate Research Colloquium*. Shah Alam, Malaysia: IEEE. <https://doi.org/10.1109/ICSGRC.2012.6287166>
- Hendrawan, N. D., & Kolandaisamy, R. (2023). A Comparative Study of YOLOv8 and YOLO - NAS Performance in Human Detection Image. *Jurnal Teknologi dan Manajemen Informatika*, 9(2), 191-201.
- Hussain, M. (2023). YOLO-v1 to YOLO-v8, the Rise of YOLO and Its Complementary Nature toward Digital Manufacturing and Industrial Defect Detection. *Machines*, 11(7), 677. <https://doi.org/10.3390/machines11070677>
- Ibrahim, M., & Latifa, U. (2023). Penerapan Algoritma YOLOv8 Dalam Deteksi Waktu Panen Tanaman Pakcoy Berbasis Website. *JATI (Jurnal Mahasiswa Teknik Informatika)*, 7(4), 2489-2495.
- Imran, A., Hulikal, M. S., & Gardi, H. A. (2024). Real Time American Sign Language Detection Using YOLO-v9. *arXiv preprint arXiv:2407.17950*. <https://doi.org/10.48550/arXiv.2407.17950>
- Janiesch, C., Zschech, P., & Heinrich, K. (2021). Machine Learning and Deep Learning. *Electronic Markets*, 31(3), 685-695.

- Jiang, P., Ergu, D., Liu, F., Cai, Y., & Ma, B. (2022). A Review of Yolo Algorithm Developments. *Procedia computer science*, 199, 1066-1073. <https://doi.org/10.1016/j.procs.2022.01.135>
- Kabadayi, A., & Erdoğan, A. (2022). Application of terrestrial photogrammetry method in cultural heritage studies: A case study of Seyfeddin Karasungur. *Mersin Photogrammetry Journal*, 4(2), 62-67. <https://doi.org/10.53093/mephoj.1200146>
- Khairunisa, N., & Jamaludin, A. (2024). Analisis Perbandingan Algoritma CNN dan YOLO dalam Mengidentifikasi Kerusakan Jalan. *Jurnal Informatika dan Teknik Elektro Terapan*, 12(3).
- Kim, B. C., & Son, B. J. (2023). Crack Detection of Concrete Images Using Dilatation and Crack Detection Algorithms. *Applied Sciences*, 13(16), 9238. <https://doi.org/10.3390/app13169238>
- Kim, T., Choi, H., Jung, J., Min, H., & Jung, Y. H. (2023). Detecting and Evaluating Displacements of Paving Blocks Adjacent to Deep Excavation Sites Using Terrestrial Photogrammetry. *Applied Sciences*, 13(12), 7245. <https://doi.org/10.3390/app13127245>
- Ko, P., Prieto, S. A., & de Soto, B. G. (2021). ABECIS: An automated building exterior crack inspection system using UAVs, open-source deep learning and photogrammetry. *ISARC. Proceedings of the International Symposium on Automation and Robotics in Construction (Vol. 38, pp. 637-644)*. IAARC Publications.
- Kovalov, A., Semkiv, O., Rudeshko, I., & Diven, V. (2018). Methodology remaining lifetime determination of the building structures. *MATEC Web of Conferences* 230, 02023 (2018). <https://doi.org/10.1051/matecconf/201823002023>
- Kusuma, T. A., Usman, K., & Saidah, S. (2021). People counting for public transportations using you only look once method. *Jurnal Teknik Informatika (Jutif)*, 2(1), 57-66.
- Kwadwo, A. G. (2021). Deep Learning, Theory and Foundation: A Brief Review. *International Journal of Innovative Science and Research Technology*, 6(11), 933-939.

- Lamia, F. J., Rogi, J. E., & Tiwow, D. (2023). Pengukuran Ketajaman Ground Sampling Distance (GSD) Di Berbagai Ketinggian Lahan Sawah Dengan Menggunakan Drone Tipe Mavic 2 Pro Di Desa Matani Kecamatan Tumpaan. *AGRI-SOSIOEKONOMI*, 19(1), 557-562.
- Larner, A. J. (2019). New unitary metrics for dementia test accuracy studies. *Progress in Neurology and Psychiatry*, 23(3), 21-25. <https://doi.org/10.1002/pnp.543>
- Mahmud, K. H., Adiwijaya, A., & Al Faraby, S. (2019). Klasifikasi Citra Multi-Kelas Menggunakan Convolutional Neural Network. *eProceedings of Engineering*, 6(1), 2127.
- Maragoni, L., & Talreja, R. (2019). Transverse crack formation in unidirectional plies predicted by means of a percolation concept. *Composites Part A: Applied Science and Manufacturing*, 117, 317-323. <https://doi.org/10.1016/j.compositesa.2018.11.025>
- Markova, M., & Kravchenko, D. (2018). 3D photogrammetry application for building inspection of cultural heritage objects. *Вісник Придніпровської державної академії будівництва та архітектури*(1), 90-95. <https://doi.org/10.30838/J.BPSACEA.2312.170118.82.44>
- Mohan, A., & Poobal, S. (2018). Crack detection using image processing: A critical review and analysis. *alexandria engineering journal*, 57(2), 787-798. <https://doi.org/10.1016/j.aej.2017.01.020>
- Moreno-Gomez, A., Perez-Ramirez, C. A., Dominguez-Gonzalez, A., Valtierra-Rodriguez, M., Chavez-Alegria, O., & Amezquita-Sanchez, J. P. (2018). Sensors used in structural health monitoring. *Archives of Computational Methods in Engineering*, 25, 901-918. <https://doi.org/10.1007/s11831-017-9217-4>
- Muniasamy, A., & Alasiry, A. (2020). Deep Learning: The Impact on Future eLearning. *International Journal of Emerging Technologies in Learning (Online)*, 15(1), 188-199. <https://doi.org/10.3991/ijet.v15i01.11435>
- Nguyen, S. D., Tran, T. S., Tran, V. P., Lee, H. J., Piran, M. J., & Le, V. P. (2023). Deep learning-based crack detection: A survey. *International Journal of Pavement Research and Technology*, 16(4), 943-967.

- Ningrum, A. T., Wijaya, R., Aziz, M. R., Mauluda, M. Y., & Rosyani, P. (2024). Face Deteksi Objek pada Gambar dan Video dengan YOLOv8 (Counting Objects). *AI Dan SPK : Jurnal Artificial Intelligent Dan Sistem Penunjang Keputusan*, 2(2), 119-126.
- Nishikawa, T., Yoshida, J., Sugiyama, T., & Fujino, Y. (2012). Concrete crack detection by multiple sequential image filtering. *Computer-Aided Civil and Infrastructure Engineering*, 27(1), 29-47. <https://doi.org/10.1111/j.1467-8667.2011.00716.x>
- Nugroho, A., Indaryanto, F., Suni, A. F., Arfriandi, A., Wibawanto, H., Oktaviyanti, D., & Savitri, D. W. (2024). Pemanfaatan Teknologi Computer Vision Berbasis Yolo Untuk Mendeteksi Kerumunan Di Smkn 4 Malang. *Jurnal Abdi Insani*, 11(1), 678-689. <https://doi.org/10.29303/abdiinsani.v11i1.1437>
- Payawal, J. M., & Kim, D. K. (2023). Image-Based Structural Health Monitoring: A Systematic Review. *Applied Sciences*, 13(2), 968. <https://doi.org/10.3390/app13020968>
- Pepe, M., & Domenica, C. (2020). Techniques, tools, platforms and algorithms in close range photogrammetry in building 3D model and 2D representation of objects and complex architectures. *Computer-Aided Design and Applications*, 18(1), 42-65. <https://doi.org/10.14733/cadaps.2021.42-65>
- Philip, R. E., Andrushia, A. D., Nammalvar, A., Gurupatham, B. G., & Roy, K. (2023). A comparative study on crack detection in concrete walls using transfer learning techniques. *Journal of Composites Science*, 7(4), 169. <https://doi.org/10.3390/jcs7040169>
- Rahman, A. A., Agustin, S. D., Ibrahim, N., & Kumalasari, N. C. (2022). Perbandingan Algoritma YOLOv4 dan Scaled YOLOv4 untuk Deteksi Objek pada Citra Termal. *MIND (Multimedia Artificial Intelligent Networking Database) Journal*, 7(1), 61-71. <https://doi.org/10.26760/mindjournal.v7i1.61-71>
- Redmon, J. (2016). You only look once: Unified, real-time object detection. *Proceedings of the IEEE conference on computer vision and pattern recognition*.
- Ribeiro, W. S., Zanetti, J., Totola, L. B., Junqueira, S. A., & Lauff, P. H. (2024). Crack detection in buildings using the YOLOv8 network. *Revista ALCONPAT*, 14(3), 288-298. <https://doi.org/10.21041/ra.v14i3.765>

- Riva, L. S., & Jayanta, J. (2023). Deteksi Penyakit Tanaman Cabai Menggunakan Algoritma YOLOv5 Dengan Variasi Pembagian Data. *Jurnal Informatika: Jurnal Pengembangan IT*, 8(3), 248-254.
- Roberts, D. A., Yaida, S., & Hanin, B. (2021). *The Principles of Deep Learning Theory*. Cambridge University Press. <https://doi.org/10.1017/9781009023405>
- Roihan, A., Sunarya, P. A., & Rafika, A. S. (2020). Pemanfaatan Machine Learning dalam Berbagai Bidang: Review paper. *Indonesian Journal on Computer and Information Technology*, 5(1), 75-82.
- Sacks, D., & Malekzadeh, A. (2020, January). *Roboflow: Computer vision tools for developers and enterprises*. Diambil kembali dari Roboflow: <https://roboflow.com/>
- Safiuddin, M., Kaish, A., Woon, C., & Raman, S. (2018). Early-age cracking in concrete: Causes, consequences, remedial measures, and recommendations. *Applied Sciences*, 8(10), 1730. <https://doi.org/10.3390/app8101730>
- Sanjaya, J., & Ayub, M. (2020). Augmentasi Data Pengenalan Citra Mobil Menggunakan Pendekatan Random Crop, Rotate, dan Mixup. *Jurnal Teknik Informatika dan Sistem Informasi*, 6(2). <https://doi.org/10.28932/jutisi.v6i2.2688>
- Santos, C., & Papa, J. (2022). Avoiding Overfitting: A Survey on Regularization Methods for Convolutional Neural Networks. *ACM Computing Surveys*, 54(10), 1-25. <https://doi.org/https://doi.org/10.1145/3510413>
- Sardana, K. B., & Cahyono, A. B. (2021). Analisis Geometri Pemodelan 3D Bangunan Gedung Teknik Geomatika ITS Menggunakan Kamera 360°. *Jurnal Teknik ITS*, 10(2), A314-A319.
- Sari, Y., Baskara, A. R., Prakoso, P. B., & Rahman, M. A. (2021). Penerapan Active Contour Model pada Pengolahan Citra untuk Deteksi Kerusakan Jalan. *Jurnal Jalan Jembatan*, 38(2), 134-142.
- Schenk, T. (2005). *Introduction to Photogrammetry*. Department of Civil and Environmental Engineering and Geodetic Science The Ohio State University.

- Sugiarto, K., Giyantara, A., & Yulisya, R. D. (2022). Object Tracking Dengan Menggunakan Color Filtering HSV Pada Robot World Cup. *Jurnal Bumigora Information Technology (Bite)*, 4(2), 143-152. <https://doi.org/10.30812/bite.v4i2.2156>
- Syaputra, M. A., Pinem, J., Lubis, A. A., & Denia, Y. (2024). Implementasi Algoritma YOLO Dalam Pengklasifikasian Objek Transportasi pada Lalu Lintas Kota Medan. *Populer: Jurnal Penelitian Mahasiswa*, 3(1), 13-23. <https://doi.org/10.58192/populer.v3i1.1641>
- Taufiqurrochman, M. A., & Februariyanti, H. (2024). Rancang Bangun Aplikasi Deteksi Alat Pelindung Diri (APD) untuk Pekerja Proyek dengan Menggunakan Algoritma YOLOv5. *Jurnal JTIK (Jurnal Teknologi Informasi dan Komunikasi)*, 8(2), 471-480.
- Terven, J., Córdova-Esparza, D. M., & Romero-González, J. A. (2023). A comprehensive review of yolo architectures in computer vision: From yolov1 to yolov8 and yolonas. *Machine Learning and Knowledge Extraction*, 5(4), 1680-1716. <https://doi.org/10.3390/make5040083>
- Tilasefana, R. A., & Putra, R. E. (2023). Penerapan Metode Deep Learning Menggunakan Algoritma CNN Dengan Arsitektur VGG NET Untuk Pengenalan Cuaca. *Journal of Informatics and Computer Science (JINACS)*, 5(1), 48-57.
- Triardhana, Y., Sasmito, B., & Hadi, F. (2021). Identifikasi Kerusakan Jalan Menggunakan Metode Deep Learning (DL) Model Convolutional Neural Networks (CNN). *Jurnal Geodesi Undip*, 10(3), 1-8.
- Tumingan, T., & Sahrullah, S. (2023). Penilaian Kondisi dan Prediksi Sisa Umur Jembatan Mahulu Kalimantan Timur Menggunakan Bridge Manajemen System (BMS). *Teknika*, 18(2), 168-175.
- Vasilakos, C., Chatzistamatis, S., Roussou, O., & Soulakellis, N. (2018). Terrestrial photogrammetry vs laser scanning for rapid earthquake damage assessment. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 42, 527-533. https://doi.org/10.1007/978-3-030-05330-7_2
- Vijayakumar, A., & Vairavasundaram, S. (2024). YOLO-based Object Detection Models: A Review and its Applications. *Multimedia Tools and Applications*, 83, 83535–83574. <https://doi.org/10.1007/s11042-024-18872-y>

- Wang, M. H., Yu, Y., Lin, Z., Zeng, P., Liu, H., Liu, Y., . . . Yu, X. (2023). Optimizing Real-Time Trichiasis Object Detection: A Comparative Analysis of YOLOv5 and YOLOv8 Performance Metrics. *2023 9th International Conference on Systems and Informatics (ICSAI)*. Changsha, China: IEEE. <https://doi.org/10.1109/ICSAI61474.2023.10423285>.
- Wibowo, J. S., Februariyanti, H., & Listiyono, H. (2024). Model Penjawab Pertanyaan Otomatis Berdasarkan Peringkat Relevansi Kalimat Menggunakan Model BERT. *Kesatria: Jurnal Penerapan Sistem Informasi (Komputer dan Manajemen)*, 5(3), 1100-1108.
- Xiong, W., Meng, W., Liang, Z., Qiu, C., Volichenko, O. V., & Arkadyevna, F. T. (2024). Ancient Building Crack Detection Based on YOLOv8 Algorithm. *Journal of Electrical Systems*, 20(10s), 1238-1243.
- Yao, Y., Tung, S. E., & Glisic, B. (2014). Crack detection and characterization techniques—An overview. *Structural Control and Health Monitoring*, 21(12), 1387-1413. <https://doi.org/10.1002/stc.1655>
- Yu, Y., Samali, B., Rashidi, M., Mohammadi, M., Nguyen, T. N., & Zhang, G. (2022). Vision-based concrete crack detection using a hybrid framework considering noise effect. *Journal of Building Engineering*, 61, 105246. <https://doi.org/10.1016/j.jobbe.2022.105246>
- Yuan, Q., Shi, Y., & Li, M. (2024). A Review of Computer Vision-Based Crack Detection Methods in Civil Infrastructure: Progress and Challenges. *Remote Sensing*, 16(16), 2910. <https://doi.org/10.3390/rs16162910>
- Zhang, M., & Xu, J. (2024). A semantic segmentation model for road cracks combining channel-space convolution and frequency feature aggregation. *Scientific reports*, 14(1), 16038. <https://doi.org/10.1038/s41598-024-66182-y>