

DAFTAR PUSTAKA

- [1] S. Yulianto, R. K. Apriyadi, A. Aprilyanto, T. Winugroho, I. S. Ponangsera, and W. Wilopo, "Histori Bencana dan Penanggulangannya di Indonesia Ditinjau Dari Perspektif Keamanan Nasional," *PENDIPA Journal of Science Education*, vol. 5, no. 2, pp. 180–187, Jan. 2021, doi: 10.33369/pendipa.5.2.180-187.
- [2] "Bencana Besar Tahun 2025 | Geoportal Kebencanaan Indonesia." Accessed: Apr. 11, 2026. [Online]. Available: <https://gis.bnpb.go.id/arcgis/apps/sites/#!/public/pages/bencana-besar-tahun-2025>
- [3] S. E. Purwati and Y. Pristyanto, "Model Random Forest and Support Vector Machine for Flood Classification in Indonesia," *sinkron*, vol. 8, no. 4, pp. 2261–2268, Oct. 2024, doi: 10.33395/sinkron.v8i4.13973.
- [4] M. Farid, M. I. Pratama, A. A. Kuntoro, M. B. Adityawan, F. I. W. Rohmat, and I. R. Moe, "Flood Prediction due to Land Cover Change in the Ciliwung River Basin," *International Journal of Technology*, vol. 13, no. 2, p. 356, Apr. 2022, doi: 10.14716/ijtech.v13i2.4662.
- [5] M. Dwi Arvi, R. Sahanaya, Y. Sibarani, Y. I. Tanjung, and T. Fairuz, "Analisis Faktor Penyebab Bencana Banjir di Kota-Kota Besar Indonesia: Studi Kasus Analisis Banjir Berbasis Literasi," *Indonesian Journal of Emerging Trends in Community Empowerment*, vol. 3, no. 1, pp. 1–8, Jun. 2025, Accessed: Apr. 11, 2026. [Online]. Available: <https://ejournal.pabki.org/index.php/ETCE/article/view/70>
- [6] Agnes Selan, Diana Yanni Ariswati, and J. Saekoko, "ANALISIS LITERATUR: EFEKTIVITAS SISTEM INFORMASI GEOGRAFIS UNTUK PEMETAAN DAERAH RAWAN BENCANA," *Jurnal Cakrawala Informasi*, vol. 5, no. 1, pp. 01–12, Jun. 2025, doi: 10.54066/jci.v5i1.541.
- [7] D. Fitriani, E. Suhartanto, U. Andawayanti, K. Kunci, : Rawan, and S. I. Geografis, "Studi Pemetaan Daerah Rawan Banjir Berbasis Sistem Informasi Geografis Sebagai Upaya Mitigasi Bencana Pada DAS Welang," *Jurnal Teknologi dan Rekayasa Sumber Daya Air*, vol. 4, no. 2, pp. 1323–1337, Aug. 2024, doi: 10.21776/UB.JTRESDA.2024.004.02.135.
- [8] M. A. Lasaiba and F. S. Leuwol, "Analisis Bahaya dan Risiko Banjir Berbasis Multikriteria di Kecamatan Sirimau Kota Ambon," *Jurnal Spatial Wahana Komunikasi dan Informasi Geografi*, vol. 24, no. 2, pp. 100–114, Jul. 2024, doi: 10.21009/10.21009/SPATIAL.242.001.
- [9] K. Ullah and J. Zhang, "GIS-based flood hazard mapping using relative frequency ratio method: A case study of Panjkora River Basin, eastern Hindu Kush, Pakistan," *PLoS One*, vol. 15, no. 3, pp. 1–18, Mar. 2020, doi: 10.1371/journal.pone.0229153.
- [10] P. Banjir Di Dki Jakarta Dengan Menggunakan Algoritma K-Means Dan Random Forest Wasis Haryo Sasoko, E. Wahyu Pujiarto, R. Haris, A. Yuza Kania, M. Teknik Informatika, and U. Amikom Yogyakarta, "Prediksi Banjir Di Dki Jakarta

Dengan Menggunakan Algoritma K-Means Dan Random Forest,” *Jurnal Informatika dan Teknologi Komputer (J-ICOM)*, vol. 5, no. 1, pp. 43–49, Apr. 2024, doi: 10.55377/J-ICOM.V5I1.8153.

- [11] A. Tella, M. R. Ul Mustafa, A. O. Balogun, C. J. Okolie, I. B. Yamusa, and M. B. Ibrahim, “SPATIAL PREDICTION OF FLOOD IN KUALA LUMPUR CITY OF MALAYSIA USING LOGISTIC REGRESSION,” *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, vol. XLVIII-4-W6-2022, no. 4/W6-2022, pp. 363–369, Feb. 2023, doi: 10.5194/ISPRS-ARCHIVES-XLVIII-4-W6-2022-363-2023.
- [12] S. Shrestha, D. Dahal, N. Bhattarai, S. Regmi, R. Sewa, and A. Kalra, “Machine Learning-Based Flood Risk Assessment in Urban Watershed: Mapping Flood Susceptibility in Charlotte, North Carolina,” *Geographies 2025, Vol. 5*, vol. 5, no. 3, Aug. 2025, doi: 10.3390/GEOGRAPHIES5030043.
- [13] B. Adiyasa, C. Dewi, and P. P. Adikara, “Deteksi Bencana Banjir Berdasarkan Data Curah Hujan Di Daerah Jakarta Menggunakan Logistic Regression Neural Network,” *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 9, no. 2, pp. 2548–964, Jan. 2025, Accessed: Feb. 14, 2026. [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/14436>
- [14] G. Dawson, J. Butt, A. Jones, and P. Fraccaro, “Flood susceptibility mapping at the country scale using machine learning approaches,” *Applied AI Letters*, vol. 4, no. 4, p. e88, Dec. 2023, doi: 10.1002/AIL2.88.
- [15] S. Prasanth Kadiyala and W. L. Woo, “Flood Prediction and Analysis on the Relevance of Features using Explainable Artificial Intelligence,” *ACM International Conference Proceeding Series*, pp. 1–6, Jan. 2022, doi: 10.1145/3516529.3516530.
- [16] J. Li, H. Zhang, J. Zhao, X. Guo, W. Rihan, and G. Deng, “Embedded Feature Selection and Machine Learning Methods for Flash Flood Susceptibility-Mapping in the Mainstream Songhua River Basin, China,” *Remote Sens. (Basel)*, vol. 14, no. 21, Nov. 2022, doi: 10.3390/RS14215523.
- [17] E. H. Ighile, H. Shirakawa, and H. Tanikawa, “Application of GIS and Machine Learning to Predict Flood Areas in Nigeria,” *Sustainability 2022, Vol. 14*, vol. 14, no. 9, Apr. 2022, doi: 10.3390/SU14095039.
- [18] M. El-Rawy, W. M. Elsadek, and F. De Smedt, “Flash Flood Susceptibility Mapping in Sinai, Egypt Using Hydromorphic Data, Principal Component Analysis and Logistic Regression,” *Water (Switzerland)*, vol. 14, no. 15, p. 2434, Aug. 2022, doi: 10.3390/W14152434/S1.
- [19] P. Wang, X. Wu, and Yichen, “Ai-driven approaches to flood risk management: overcoming data bias and enhancing decision-making,” *Clim. Risk Manag.*, vol. 50, p. 100752, Jan. 2025, doi: 10.1016/J.CRM.2025.100752.
- [20] J. Petch, S. Di, and W. Nelson, “Opening the Black Box: The Promise and Limitations of Explainable Machine Learning in Cardiology,” *Canadian Journal of*

Cardiology, vol. 38, no. 2, pp. 204–213, Feb. 2022, doi: 10.1016/J.CJCA.2021.09.004.

- [21] M. L. Edamo, E. G. Ayele, T. Yisihak Ukumo, A. Alemayehu Kassaye, and A. Paulos Haile, “Capability of logistic regression in identifying flood-susceptible areas in a small watershed,” *H2Open Journal*, vol. 7, no. 5, pp. 351–374, Sep. 2024, doi: 10.2166/h2oj.2024.024.
- [22] K. Waiyasusri, P. Wetchayont, A. Tananonchai, and D. Suwanmajo, “Flood Susceptibility Mapping Using Logistic Regression Analysis In Lam Khan Chu Watershed, Chaiphum Province, Thailand,” *GEOGRAPHY, ENVIRONMENT, SUSTAINABILITY*, vol. 16, no. 2, pp. 41–56, Jun. 2023, doi: 10.24057/2071-9388-2022-159.
- [23] D. N. Tasya, P. Pinuji, and Ikhwanudin, “Mitigasi Bencana Pada Bencana Hidrometeorologi Di Indonesia,” *Science and Engineering National Seminar (SENS)*, vol. 8, no. 1, pp. 144–148, 2023, Accessed: Mar. 14, 2026. [Online]. Available: <https://conference.upgris.ac.id/index.php/sens/article/view/4994>
- [24] Muhammad Khalis Ilmi *et al.*, “Penyuluhan Bahaya dan Upaya Mitigasi Bencana Hidrometeorologi di Desa Lembah Sari, Kecamatan Batu Layar, Kabupaten Lombok Barat,” *Rengganis Jurnal Pengabdian Masyarakat*, vol. 3, no. 2, pp. 179–186, Nov. 2023, doi: 10.29303/rengganis.v3i2.347.
- [25] “Mitigasi Meningkatkan Kesadaran Risiko dan Penanggulangan Bencana Hidrometeorologi,” *Jurnal Riksa Cendikia Nusantara*, vol. 1, no. 3, [Online]. Available: <https://ejournal.lembagarisetmandirinusantara.or.id/index.php/jrcn/article/view/31>
- [26] “BANJIR, ROB, DAN GENANGAN (Penyebab, Dampak, dan Upaya Penanggulangan) – BMKG Knowledge Management System.” Accessed: Feb. 13, 2026. [Online]. Available: <https://kms.bmkg.go.id/2025/11/banjir-rob-dan-genangan-penyebab-dampak-dan-upaya-penanggulangan/>
- [27] E. D. Syafitri, G. Lady, A. N. Dewanti, and D. N. Tufail, “Analisis Ruang Terbuka Hijau Publik Terdampak Banjir di Kota Balikpapan,” *SPECTA Journal of Technology*, vol. 7, no. 1, May 2023, doi: 10.35718/specta.v7i1.814.
- [28] R. Rinanda, W. Alamsyah, and D. Basrin, “Analisis Topografi dan Kerusakan Jalan di Kecamatan Langsa Baro dengan SIG,” *Jurnal Ilmiah Telsinas Elektro, Sipil dan Teknik Informasi*, vol. 6, no. 2, pp. 147–157, Sep. 2023, doi: 10.38043/telsinas.v6i2.4510.
- [29] “Tanahair Indonesia.” Accessed: Jan. 08, 2026. [Online]. Available: <https://tanahair.indonesia.go.id/>
- [30] M. Ariska, Suhadi, Supari, M. Irfan, and I. Iskandar, “Spatio-Temporal Variations of Indonesian Rainfall and Their Links to Indo-Pacific Modes,” *Atmosphere (Basel)*, vol. 15, no. 9, p. 1036, Aug. 2024, doi: 10.3390/atmos15091036.
- [31] A. Sani Heryanti, K. Syifa Noveriza Supryatna, Y. Rahayu, and M. Andi Septiadi, “ANALISIS POTENSI FAKTOR PENYEBAB BANJIR DI KECAMATAN

- DAYEUEHKOLOT KABUPATEN BANDUNG,” *Journal Geological Processes, Risk and Integrated Spatial Modeling*, vol. 3, no. 1, Aug. 2025, Accessed: Mar. 30, 2026. [Online]. Available: <https://www.jurnal.prisma.ac.id/index.php/jgprism/article/view/318/103>
- [32] “Arti kata elevasi - Kamus Besar Bahasa Indonesia (KBBI) Online.” Accessed: Mar. 30, 2026. [Online]. Available: <https://kbbi.web.id/elevasi>
- [33] Paul. Bolstad, *GIS fundamentals : a first text on geographic information systems*. XanEdu ; Eider Press, 2017.
- [34] K. S. Wulandari, Y. Yushardi, and S. Sudarti, “ANALISIS INTENSITAS CURAH HUJAN KECAMATAN BANYUWANGI MENGGUNAKAN CLIMATE PREDICTABILITY TOOLS,” *Jurnal Kumbaran Fisika*, vol. 6, no. 2, pp. 97–106, Sep. 2023, doi: 10.33369/jkf.6.2.97-106.
- [35] “Badan Meteorologi, Klimatologi dan Geofisika Wilayah 3 Denpasar.” Accessed: Feb. 23, 2026. [Online]. Available: <https://bbmkg3.bmkg.go.id/daftar-istilah-musim>
- [36] F. Pyanto, “Pencitraan Banjir Rob Zona Medan Utara Menggunakan Regresi Logistik dan Artificial Neural Network Serta Global Information System,” *Jurnal Ilmiah Ecosystem*, vol. 23, no. 1, pp. 60–74, Apr. 2023, doi: 10.35965/eco.v23i1.2441.
- [37] A. Ultsch and J. Lötsch, “Euclidean distance-optimized data transformation for cluster analysis in biomedical data (EDOtrans),” *BMC Bioinformatics*, vol. 23, no. 1, p. 233, Dec. 2022, doi: 10.1186/s12859-022-04769-w.
- [38] K.-C. Chen, C.-F. Lee, T.-W. Chang, C.-G. Wang, and J.-R. Li, “From Viewing to Structure: A Computational Framework for Modeling and Visualizing Visual Exploration,” *Applied Sciences*, vol. 15, no. 14, p. 7900, Jul. 2025, doi: 10.3390/app15147900.
- [39] A. Yulianeu and R. Oktamala, “SISTEM INFORMASI GEOGRAFIS TRAYEK ANGKUTAN UMUM DI KOTA TASIKMALAYA BERBASIS WEB,” *JUTEKIN (Jurnal Teknik Informatika)*, vol. 10, no. 2, Nov. 2022, doi: 10.51530/jutekin.v10i2.669.
- [40] A. Faisol, *Konsep Dasar Analisis Spasial*. Penerbit Andi. [Online]. Available: <https://books.google.co.id/books?id=IewNEQAAQBAJ>
- [41] “What is OpenStreetMap? - Welcome to OpenStreetMap.” Accessed: Mar. 14, 2026. [Online]. Available: <https://welcome.openstreetmap.org/what-is-openstreetmap/>
- [42] “About GeoPandas — GeoPandas 1.1.2+0.g81214bf.dirty documentation.” Accessed: Mar. 03, 2026. [Online]. Available: <https://geopandas.org/en/stable/about.html>
- [43] D. Dey *et al.*, “The proper application of logistic regression model in complex survey data: a systematic review,” *BMC Med. Res. Methodol.*, vol. 25, no. 1, p. 15, Jan. 2025, doi: 10.1186/s12874-024-02454-5.

- [44] A. Zaidi and A. S. M. Al Luhayb, "Two Statistical Approaches to Justify the Use of the Logistic Function in Binary Logistic Regression," *Math. Probl. Eng.*, vol. 2023, no. 1, Jan. 2023, doi: 10.1155/2023/5525675.
- [45] S. R. Dubey, S. K. Singh, and B. B. Chaudhuri, "Activation functions in deep learning: A comprehensive survey and benchmark," *Neurocomputing*, vol. 503, pp. 92–108, Sep. 2022, doi: 10.1016/j.neucom.2022.06.111.
- [46] E. C. Zabor, C. A. Reddy, R. D. Tendulkar, and S. Patil, "Logistic Regression in Clinical Studies," *Int. J. Radiat. Oncol. Biol. Phys.*, vol. 112, no. 2, pp. 271–277, Feb. 2022, doi: 10.1016/j.ijrobp.2021.08.007.
- [47] M. L. Edamo, E. G. Ayele, T. Yisihak Ukumo, A. Alemayehu Kassaye, and A. Paulos Haile, "Capability of logistic regression in identifying flood-susceptible areas in a small watershed," *H2Open Journal*, vol. 7, no. 5, pp. 351–374, Sep. 2024, doi: 10.2166/h2oj.2024.024.
- [48] P. Belany, P. Hrabovsky, S. Sedivy, N. Cajova Kantova, and Z. Florkova, "A Comparative Analysis of Polynomial Regression and Artificial Neural Networks for Prediction of Lighting Consumption," *Buildings 2024, Vol. 14, Page 1712*, vol. 14, no. 6, p. 1712, Jun. 2024, doi: 10.3390/BUILDINGS14061712.
- [49] Jude Chukwura Obi and Ibebuike Chinenye Jecinta, "A Review of Techniques for Regularization," *International Journal of Research in Engineering and Science*, vol. 11, no. 1, pp. 360–367, Jan. 2023.
- [50] R. Ramadhan Laska and A. Mudya Yolanda, "A Comparative Study of Z-Score and Min-Max Normalization for Rainfall Classification in Pekanbaru," 2024, Accessed: Mar. 14, 2026. [Online]. Available: <http://ipublishing.intimal.edu.my/jods.html>
- [51] Surendra Kumar Reddy Koduru, "A Comprehensive Analysis Of Normalization Approaches For Privacy Protection In Data Mining," *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, pp. 144–157, Sep. 2022, doi: 10.32628/CSEIT1228529.
- [52] T. Burzykowski, M. Geubbelmans, A.-J. Rousseau, and D. Valkenburg, "Validation of machine learning algorithms," *American Journal of Orthodontics and Dentofacial Orthopedics*, vol. 164, no. 2, pp. 295–297, Aug. 2023, doi: 10.1016/j.ajodo.2023.05.007.
- [53] J. A. Ilemobayo *et al.*, "Hyperparameter Tuning in Machine Learning: A Comprehensive Review," *Journal of Engineering Research and Reports*, vol. 26, no. 6, pp. 388–395, Jun. 2024, doi: 10.9734/jerr/2024/v26i61188.
- [54] M. Y. Shams, A. M. Elshewey, E.-S. M. El-kenawy, A. Ibrahim, F. M. Talaat, and Z. Tarek, "Water quality prediction using machine learning models based on grid search method," *Multimed. Tools Appl.*, vol. 83, no. 12, pp. 35307–35334, Sep. 2023, doi: 10.1007/s11042-023-16737-4.
- [55] O. Rainio, J. Teuho, and R. Klén, "Evaluation metrics and statistical tests for machine learning," *Sci. Rep.*, vol. 14, no. 1, p. 6086, Mar. 2024, doi: 10.1038/s41598-024-56706-x.

- [56] J. Li, “Area under the ROC Curve has the most consistent evaluation for binary classification,” *PLoS One*, vol. 19, no. 12, p. e0316019, Dec. 2024, doi: 10.1371/journal.pone.0316019.
- [57] S. Sathyanarayanan, “Confusion Matrix-Based Performance Evaluation Metrics,” *African Journal of Biomedical Research*, pp. 4023–4031, Nov. 2024, doi: 10.53555/AJBR.v27i4S.4345.
- [58] R. Diani, R. Fitria, and N. S. Nurfbruary, “EVALUASI KUALITAS PENGGUNAAN APLIKASI TRAVELOKA MENGGUNAKAN MODEL FURPS,” *JATI (Jurnal Mahasiswa Teknik Informatika)*, vol. 9, no. 5, pp. 7659–7666, Jul. 2025, doi: 10.36040/JATI.V9I5.14812.

