

DAFTAR PUSTAKA

- Aerts, J. P. M., Uhlemann-Elmer, S., Eilander, D., & Ward, P. J. (2020). Comparison of estimates of global flood models for flood hazard and exposed gross domestic product: A China case study. *Natural Hazards and Earth System Sciences*, 20(12), 3245–3260. <https://doi.org/10.5194/nhess-20-3245-2020>
- Alfieri, L., Campo, L., Gabellani, S., Ghizzoni, T., Herold, C., Libertino, A., Trasforini, E., & Rudari, R. (2023). *The GRI global flood hazard model*. https://www.isimip.org/documents/413/ISIMIP3b_bias_adjustment_fact_sheet_Gnsz7CO.pdf
- Breiman, L. Random forests. *Mach. Learn.* 2001, 45, 5–32.
- Bui, D. T., Pradhan, B., Nampak, H., Bui, Q. T., Tran, Q. A., & Nguyen, Q. P. (2016). Hybrid artificial intelligence approach based on neural fuzzy inference model and metaheuristic optimization for flood susceptibility modeling in a high-frequency tropical cyclone area using GIS. *Journal of Hydrology*, 540, 317–330. <https://doi.org/10.1016/j.jhydrol.2016.06.027>
- Cao, Y., Miao, Q. G., Liu, J. C., & Gao, L. (2013). Advance and prospects of AdaBoost algorithm. *Acta Automatica Sinica*, 39(6), 745–758. [https://doi.org/10.1016/S1874-1029\(13\)60052-X](https://doi.org/10.1016/S1874-1029(13)60052-X)
- Efraimidou, E., & Spiliotis, M. (2024). A GIS-Based Flood Risk Assessment Using the Decision-Making Trial and Evaluation Laboratory Approach at a Regional Scale. *Environmental Processes*, 11(1). <https://doi.org/10.1007/s40710-024-00683-w>
- Elsheikh, R. F. A., Ouerghi, S., & Elhag, A. R. (2015). Flood Risk Map Based on GIS, and Multi Criteria Techniques (Case Study Terengganu Malaysia). *Journal of Geographic Information System*, 07(04), 348–357. <https://doi.org/10.4236/jgis.2015.74027>
- Gül, B., & Kayaalp, N. (2024). Investigation of the flood event under global

- climate change with different analysis methods for both historical and future periods. *Journal of Water and Climate Change*, 15(8), 3939–3965. <https://doi.org/10.2166/wcc.2024.196>
- Imamura, Y. (2022). Development of a Method for Assessing Country-Based Flood Risk at the Global Scale. *International Journal of Disaster Risk Science*, 13(1), 87–99. <https://doi.org/10.1007/s13753-021-00388-w>
- Jain, H., Dhupper, R., Shrivastava, A., Kumar, D., & Kumari, M. (2023). Leveraging machine learning algorithms for improved disaster preparedness and response through accurate weather pattern and natural disaster prediction. In *Frontiers in Environmental Science* (Vol. 11). Frontiers Media SA. <https://doi.org/10.3389/fenvs.2023.1194918>
- Khalid, R., & Khan, U. T. (2024). Flood susceptibility mapping using ANNs: a case study in model generalization and accuracy from Ontario, Canada. *Geocarto International*, 39(1). <https://doi.org/10.1080/10106049.2024.2316653>
- Kementerian Pertahanan Republik Indonesia. (2014). *Buku Putih Pertahanan Indonesia*.
- Liu, J., Xiong, J., Cheng, W., Li, Y., Cao, Y., He, Y., Duan, Y., He, W., and Yang, G.: Assessment of Flood Susceptibility Using Support Vector Machine in the Belt and Road Region, *Nat. Hazards Earth Syst. Sci. Discuss.* [preprint], <https://doi.org/10.5194/nhess-2021-80>, 2021.
- Liu, W., Yang, T., Sun, F., Wang, H., Feng, Y., & Du, M. (2021). Observation-Constrained Projection of Global Flood Magnitudes With Anthropogenic Warming. *Water Resources Research*, 57(3). <https://doi.org/10.1594/PAN>
- Mokhtari, E., Mezali, F., Abdelkebir, B., & Engel, B. (2023). Flood risk assessment using analytical hierarchy process: A case study from the Cheliff-Ghrib watershed, Algeria. *Journal of Water and Climate Change*, 14(3), 694–711. <https://doi.org/10.2166/wcc.2023.316>
- Osman, S. A., & Das, J. (2023). GIS-based flood risk assessment using

- multi-criteria decision analysis of Shebelle River Basin in southern Somalia. *SN Applied Sciences*, 5(5). <https://doi.org/10.1007/s42452-023-05360-5>
- Pradhan, B. (2010). Flood susceptible mapping and risk area delineation using logistic regression, GIS and remote sensing. *Journal of Spatial Hydrology*, 9(2), 1–18.
- Purwanto, A., Rustam, Eviliyanto, & Andrasmore, D. (2022). Flood Risk Mapping Using GIS and Multi-Criteria Analysis at Nanga Pinoh West Kalimantan Area. In *Indonesian Journal of Geography* (Vol. 54, Issue 3, pp. 463–470). Gadjah Mada University. <https://doi.org/10.22146/IJG.69879>
- Re, M. NatCat SERVICE Database, Munich RE: Munich, Germany, 2014
- Risling, A., Lindersson, S., & Brandimarte, L. (2024). A comparison of global flood models using Sentinel-1 and a change detection approach. *Natural Hazards*. <https://doi.org/10.1007/s11069-024-06629-7>
- UN International Strategy for Disaster Reduction (UNISDR). Reducing Disaster Risks through Science: Issues and Actions; UN International Strategy for Disaster Reduction: Geneva, Switzerland, 2009.
- United Nations Office for Disaster Risk Reduction (UNDRR). (2015). *Sendai Framework for Disaster Risk Reduction 2015-2030*. United Nations. <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
- Vojtek, M., Vojteková, J., Costache, R., Pham, Q. B., Lee, S., Arshad, A., Sahoo, S., Linh, N. T. T., & Anh, D. T. (2021). Comparison of multi-criteria-analytical hierarchy process and machine learning-boosted tree models for regional flood susceptibility mapping: a case study from Slovakia. *Geomatics, Natural Hazards and Risk*, 12(1), 1153–1180. <https://doi.org/10.1080/19475705.2021.1912835>
- Waseem, M., Ahmad, S., Ahmad, I., Wahab, H., & Leta, M. K. (2023). Urban

- flood risk assessment using AHP and geospatial techniques in swat Pakistan. *SN Applied Sciences*, 5(8). <https://doi.org/10.1007/s42452-023-05445-1>
- Wing, O. E. J., Bates, P. D., Quinn, N. D., Savage, J. T. S., Uhe, P. F., Cooper, A., Collings, T. P., Addor, N., Lord, N. S., Hatchard, S., Hoch, J. M., Bates, J., Probyn, I., Himsworth, S., Rodríguez González, J., Brine, M. P., Wilkinson, H., Sampson, C. C., Smith, A. M., Haigh, I. D. (2024). A 30 m Global Flood Inundation Model for Any Climate Scenario. *Water Resources Research*, 60(8). <https://doi.org/10.1029/2023WR036460>
- Wondim, Y. K. (2016). Flood Hazard and Risk Assessment Using GIS and Remote Sensing in Lower Awash Sub-basin, Ethiopia. *Journal of Environment and Earth Science*, 6. www.iiste.org
- World Economic Forum. (2019). *The global risks report* (14th ed.). Davos, Switzerland: World Economic Forum.
- Yu, Q., Wang, Y., & Li, N. (2022). Extreme Flood Disasters: Comprehensive Impact and Assessment. *Water*, 14(8), 1211. <https://doi.org/10.3390/w14081211>
- Zhang, B., Ouyang, C., Cui, P., Xu, Q., Wang, D., Zhang, F., Li, Z., Fan, L., Lovati, M., Liu, Y., & Zhang, Q. (2024). Deep learning for cross-region streamflow and flood forecasting at a global scale. *Innovation*, 5(3). <https://doi.org/10.1016/j.xinn.2024.100617>
- Zhang, L., Cao, Q., & Liu, K. (2023). Mutation Characteristics of Precipitation Concentration Spatiotemporal Variation and Its Potential Correlation with Low-Frequency Climate Factors in the LRB Area from 1960 to 2020. *Water (Switzerland)*, 15(5). <https://doi.org/10.3390/w15050955>
- Zhu, K., Lai, C., Wang, Z., Zeng, Z., Mao, Z., & Chen, X. (2024). A novel framework for feature simplification and selection in flood susceptibility assessment based on machine learning. *Journal of Hydrology: Regional Studies*, 52. <https://doi.org/10.1016/j.ejrh.2024.101739>

- Hamzah, M. Z., Rico, R., & Sofilda, E. (2023). Flood disaster mitigation policy in strengthening social and economic resilience in Java Island. *OIDA International Journal of Sustainable Development*, 16(10), 11-26. <https://ssrn.com/abstract=4685776>
- Langlois, B. K., Marsh, E., Stotland, T., Simpson, R. B., Berry, K., Carroll, D. A., Ismanto, A., Koch, M., & Naumova, E. N. (2023). Usability of existing global and national data for flood related vulnerability assessment in Indonesia. *The Science of the total environment*, 873, 162315. <https://doi.org/10.1016/j.scitotenv.2023.162315>
- R. Madhuri, S. Sistla, K. Srinivasa Raju; Application of machine learning algorithms for flood susceptibility assessment and risk management. *Journal of Water and Climate Change* 1 September 2021; 12 (6): 2608–2623. <https://doi.org/10.2166/wcc.2021.051>
- Cita Sari, U., & Harya Dananjaya, R. (2020). Analysis of Flood Vulnerability Assessment in Urban Area (Case Study: North Semarang District). *Journal of Advanced Civil and Environmental Engineering*, 3(1), 36–43.
- Q. Nafishoh, I. Meilano and A. Riqqi, "Quantitative Flood Risk Projection in Java Island, Indonesia," *2018 IEEE Asia-Pacific Conference on Geoscience, Electronics and Remote Sensing Technology (AGERS)*, Jakarta, Indonesia, 2018, pp. 1-6, doi: 10.1109/AGERS.2018.8554093.
- European Space Agency (ESA). (2015). *Sentinel-2 User Handbook*
- FAO/IIASA/ISRIC/ISS-CAS/JRC. (2012). *Harmonized World Soil Database Version 1.2*. Food and Agriculture Organization of the United Nations.
- Funk, C., Peterson, P., Landsfeld, M., et al. (2015). A Global Satellite-Enhanced Precipitation Dataset for Climate Science and Applications. *Scientific Data*, 2, Article 150066. doi:10.1038/sdata.2015.66
- Badan Informasi Geospasial (BIG). (2020). *Digital Elevation Model (DEM) Nasional*.
- Z-Score. (2024). In P. Wexler (Ed.), *Dictionary of Toxicology*. Springer.

https://doi.org/10.1007/978-981-99-9283-6_2985

- Chan, J.C.C., Kroese, D.P. (2025). Shrinkage and Regularization. In: Statistical Modeling and Computation. Springer Texts in Statistics. Springer, New York, NY. https://doi-org.ezproxy.ugm.ac.id/10.1007/978-1-0716-4132-3_9
- Schlenger, J. (2024). Random Forest. In: Memmert, D. (eds) Computer Science in Sport. Springer, Berlin, Heidelberg. https://doi-org.ezproxy.ugm.ac.id/10.1007/978-3-662-68313-2_24
- Ghosh, S. *et al.* (2025). Application of XGBoost in Flood Modeling. In: Pandey, M., Umamahesh, N.V., Ahmad, Z., Valyrakis, M. (eds) Flood Forecasting and Hydraulic Structures. HYDRO 2023. Lecture Notes in Civil Engineering, vol 546. Springer, Singapore. https://doi-org.ezproxy.ugm.ac.id/10.1007/978-981-97-9168-2_16
- Liu, Y. (2023). Mean Square Error of Survey Estimates. In: Maggino, F. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Cham. https://doi-org.ezproxy.ugm.ac.id/10.1007/978-3-031-17299-1_1754
- Yugay, O., Yerashenia, N., Budimir, D. (2024). Study of Machine Learning Models for IoT Based Efficient Classroom Usage. In: Koucheryavy, Y., Aziz, A. (eds) Internet of Things, Smart Spaces, and Next Generation Networks and Systems. NEW2AN ruSMART 2023 2023. Lecture Notes in Computer Science, vol 14542. Springer, Cham. https://doi-org.ezproxy.ugm.ac.id/10.1007/978-3-031-60994-7_21