



DAFTAR PUSTAKA

- [1] R. Hidayat, M. D. Juniarti, and U. Ma'rufah, "Impact of La niña and La niña modoki on indonesia rainfall variability," *IOP Conference Series: Earth and Environmental Science*, vol. 149, no. 1, p. 012046, 2018. [Online]. Available: <https://doi.org/10.1088/1755-1315/149/1/012046>
- [2] W. N. Harahap, B. Yuniasih, and S. Gunawan, "Dampak La Nina 2021–2022 terhadap peningkatan curah hujan," *AGROISTA: Jurnal Agroteknologi*, vol. 7, no. 1, pp. 26–32, 2023.
- [3] S. Risnayah, "Dampak La Nina 2020–2021 terhadap curah hujan di sulawesi tenggara," *Buletin GAW Bariri (BGB)*, vol. 2, no. 2, pp. 97–104, Mar. 2022. [Online]. Available: <https://gaw-bariri.bmkg.go.id/bgb/index.php/bgb/article/view/60>
- [4] Badan Meteorologi, Klimatologi, dan Geofisika (BMKG), "Bmkg: Waspada la nina dan peningkatan risiko bencana hidrometeorologi," <https://www.bmkg.go.id/siaran-pers/bmkg-waspada-la-nina-dan-peningkatan-risiko-bencana-hidrometeorologi>, October 2021, diakses pada 19 Juni 2025.
- [5] BPBD Daerah Istimewa Yogyakarta, "Antisipasi dan kesiapsiagaan dalam menghadapi la-nina pada musim hujan 2021/2022 di daerah istimewa yogyakarta," Nov. 2021.
- [6] W. Zhang, R. Li, P. Shang, and H. Liu, "Impact analysis of rainfall on traffic flow characteristics in beijing," *International Journal of Intelligent Transportation Systems Research*, vol. 17, no. 2, pp. 150–160, 2019.
- [7] P. Guo, Y. Sun, Q. Chen, J. Li, and Z. Liu, "The impact of rainfall on urban human mobility from taxi GPS data," *Sustainability*, vol. 14, no. 15, p. 9355, 2022. [Online]. Available: <https://doi.org/10.3390/su14159355>
- [8] A. F. Ismaili, "The impact of weather variability on individual desire to use public transport: Case study yogyakarta–indonesia," Master's thesis, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2016, program Studi Magister Sistem dan Teknik Transportasi. [Online]. Available: https://etd.repository.ugm.ac.id/home/detail_pencarian/103317
- [9] R. Ahas, S. Silm, E. Saluveer, and O. Järv, "Modelling home and work locations of populations using passive mobile positioning data," in *Location Based Services and TeleCartography II*, ser. Lecture Notes in Geoinformation and Cartography. Springer, 2009, vol. 18, pp. 301–315. [Online]. Available: https://doi.org/10.1007/978-3-540-87393-8_18
- [10] I. M. F. Asia and P. Dept, "Indonesia: Selected issues," *IMF Staff Country Reports*, vol. 2021, no. 047, p. A007, 2021. [Online]. Available: <https://www.elibrary.imf.org/view/journals/002/2021/047/article-A007-en.xml>
- [11] LCDI Indonesia, "Climate change," <https://lcdi-indonesia.id/tag/climate-change/>, 2021.



- [12] Widyawan, M. Syarif, and A. R. Pratama, "Mobility of Indonesian during early pandemic: Insights from mobile positioning data," in *2022 14th International Conference on Information Technology and Electrical Engineering (ICITEE)*, 2022, pp. 1–6.
- [13] S. Khayati, "Pengembangan academic sandbox untuk eksplorasi mobilitas manusia berdasar data lokasi telepon seluler selama pandemi covid-19," 2019. [Online]. Available: <https://etd.repository.ugm.ac.id/penelitian/detail/213443>
- [14] R. I. Nurlita, "Analisis spatial time-series data untuk identifikasi pola kecepatan dan arus lalu lintas di jalan Malioboro berbasis active mobile positioning data," Yogyakarta, Indonesia, 2024. [Online]. Available: <https://etd.repository.ugm.ac.id/penelitian/detail/241360>
- [15] T. Takano, H. Morita, N. Piamsa-nga, V. Vichiensan, and S. Nakamura, "Statistical analysis of rainfall impacts on urban traffic in Bangkok, Thailand," *Hydrological Research Letters*, vol. 17, pp. 85–91, 12 2023.
- [16] Y. Yao, L. Liang, Y. Zhang, Y. Wang, Z. Hu, Y. Fan, Q. Guan, R. Jiang, and R. Shibasaki, "Resilience patterns of multiscale human mobility under extreme rainfall events using massive individual trajectory data," *Annals of the American Association of Geographers*, vol. 115, pp. 1–25, 01 2025.
- [17] H. Barbosa, M. Barthelemy, G. Ghoshal, C. R. James, M. Lenormand, T. Louail, R. Menezes, J. J. Ramasco, F. Simini, and M. Tomasini, "Human mobility: Models and applications," *Physics Reports*, vol. 734, pp. 1–74, Mar. 2018. [Online]. Available: <https://doi.org/10.1016/j.physrep.2018.01.001>
- [18] A. Memon, J. Kilby, J. Breñosa, J. C. Martínez Espinosa, and I. Ashraf, "Analysis and implementation of human mobility behavior using similarity analysis based on co-occurrence matrix," *Sensors*, vol. 22, no. 24, p. 9898, Dec. 2022. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9783710/>
- [19] L. Pappalardo and F. Simini, "Data-driven generation of spatio-temporal routines in human mobility," *Data Mining and Knowledge Discovery*, vol. 32, no. 3, pp. 787–829, Dec. 2018. [Online]. Available: <https://doi.org/10.1007/s10618-017-0548-4>
- [20] R. Ahas, A. Aasa, A. Roose, U. Mark, and S. Silm, "Evaluating passive mobile positioning data for tourism surveys: An Estonian case study," *Tourism Management*, vol. 29, pp. 469–486, 06 2008.
- [21] Positium, "Mobile positioning data faq: Mpd basics," Blog post, April 2022, diakses 19 Juni 2025. [Online]. Available: <https://positium.com/blog/mobile-positioning-data-faq-mpd-basics>
- [22] S. P. Cerqueira, E. Arsenio, J. Barateiro, and R. Henriques, "Data analytics to advance the inference of origin–destination in public transport systems: tracing network vulnerabilities and age-sensitive trip purposes," *European Transport Research Review*, vol. 17, no. 1, p. 30, May 2025. [Online]. Available: <https://doi.org/10.1186/s12544-025-00720-1>



- [23] L. Zhao and Y. Li, “Identifying origin-destination trips from gps data – application in travel time reliability of dedicated trucks,” *Promet - Traffic & Transportation*, vol. 34, no. 1, pp. 25–38, Feb. 2022. [Online]. Available: <https://traffic.fpz.hr/index.php/PROMTT/article/view/3799>
- [24] Y. Du, T. Aoki, and N. Fujiwara, “Unveiling realistic mobility patterns with home–origin–destination data aggregation,” *European Physical Journal Plus*, vol. 139, no. 5, p. 403, May 2024. [Online]. Available: <https://doi.org/10.1140/epjp/s13360-024-05142-x>
- [25] M. Mamei, N. Bicocchi, M. Lippi, S. Mariani, and F. Zambonelli, “Evaluating origin-destination matrices obtained from cdr data,” *Sensors (Basel)*, vol. 19, no. 20, p. 4470, Oct. 2019. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6832488/>
- [26] G. Galliani, P. Secchi, and F. Ieva, “Estimation of dynamic origin–destination matrices in a railway transportation network integrating ticket sales and passenger count data,” *Transportation Research Part A: Policy and Practice*, vol. 190, p. 104246, 2024. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0965856424002945>
- [27] G. Chartrand, *Introductory Graph Theory*, unabridged ed., ser. Dover Books on Mathematics. Mineola, NY: Dover Publications, Dec. 1984.
- [28] A. Majeed and I. Rauf, “Graph theory: A comprehensive survey about graph theory applications in computer science and social networks,” *Inventions*, vol. 5, no. 1, 2020. [Online]. Available: <https://www.mdpi.com/2411-5134/5/1/10>
- [29] L. Pappalardo, F. Simini, G. Barlacchi, and R. Pellungrini, “scikit-mobility : A python library for the analysis, generation, and risk assessment of mobility data,” *Journal of Statistical Software*, vol. 103, 07 2022.
- [30] A. Hagberg, P. Swart, and D. Chult, “Exploring network structure, dynamics, and function using networkx,” 06 2008.
- [31] R. Azdy and F. Darnis, “Use of haversine formula in finding distance between temporary shelter and waste end processing sites,” *Journal of Physics: Conference Series*, vol. 1500, p. 012104, 04 2020.
- [32] NetworkX Developers, “density(g) — networkx documentation,” <https://networkx.org/documentation/stable/reference/generated/networkx.classes.function.density.html>, diakses pada 20 Juni 2025.
- [33] N. Developers, “closeness_centrality — networkx 3.2.1 documentation,” https://networkx.org/documentation/stable/reference/algorithms/generated/networkx.algorithms.centrality.closeness_centrality.html, 2024, accessed: 2025-06-20.
- [34] A. Z. Rakhman, L. Edi Nugroho, W. Widyawan, and N. K. Utami, “From gps to maps: Path reconstruction techniques for understanding people mobility with low-sampling-rate data,” in *2023 3rd International Conference on Intelligent Cybernetics Technology and Applications (ICICyTA)*, 2023, pp. 142–147.



- [35] P. A. Zandbergen and S. J. Barbeau, "Positional accuracy of assisted gps data from high-sensitivity gps-enabled mobile phones," *Journal of Navigation*, vol. 64, no. 3, p. 381–399, 2011.
- [36] F. Barth, S. Funke, T. S. Jepsen, and C. Proissl, "Scalable unsupervised multi-criteria trajectory segmentation and driving preference mining," in *Proceedings of the 9th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data*, ser. BigSpatial '20. New York, NY, USA: Association for Computing Machinery, 2020. [Online]. Available: <https://doi.org/10.1145/3423336.3429348>
- [37] Y. Zheng, "Trajectory data mining: An overview," *ACM Trans. Intell. Syst. Technol.*, vol. 6, no. 3, May 2015. [Online]. Available: <https://doi.org/10.1145/2743025>
- [38] Q. Li, Y. Zheng, X. Xie, Y. Chen, W. Liu, and W.-Y. Ma, "Mining user similarity based on location history," in *Proceedings of the 16th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, ser. GIS '08. New York, NY, USA: Association for Computing Machinery, 2008. [Online]. Available: <https://doi.org/10.1145/1463434.1463477>
- [39] K. Zheng, Y. Zheng, X. Xie, and X. Zhou, "Reducing uncertainty of low-sampling-rate trajectories," in *2012 IEEE 28th International Conference on Data Engineering*, 2012, pp. 1144–1155.
- [40] Y. Sun and Y. Chen, "Travel time variability in urban mobility: Exploring transportation system reliability performance using ridesharing data," *Sustainability*, vol. 16, no. 18, 2024. [Online]. Available: <https://www.mdpi.com/2071-1050/16/18/8103>
- [41] Badan Meteorologi Klimatologi dan Geofisika (BMKG), "Buletin klimatologi provinsi nusa tenggara timur juni 2020," Stasiun Klimatologi Kelas I Kupang, BMKG, Tech. Rep., 2020. [Online]. Available: https://ntt.bmkg.go.id/uploads/buletin/2020/06/buletin%20_Juni_2020.pdf