UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Aaron, D., & Woo, H. (2023). A standardized European hexagon gridded dataset based on OpenStreetMap POIs. *Data in Brief*, *49*, 109315. https://doi.org/10.1016/j.dib.2023.109315

Appleton, K., & Lovett, A. (2005). GIS-based visualisation of development proposals : reactions from planning and related professionals. *Computers, Environment and Urban Systems*, *29*, 321–339. https://doi.org/10.1016/j.compenvurbsys.2004.05.005

Badan Pusat Statistik Kota Bekasi. (2026). *Kota Bekasi Dalam Angka*. https://doi.org/ISSN 1907-3763

Ban, X. J., Herring, R., Hao, P., & Bayen, A. M. (2009). Delay Pattern Estimation for Signalized Intersections Using Sampled Travel Times. *Journal of the Transportation Research Board*, *2130*, 109–119. https://doi.org/10.3141/2130-14

Boo, G., Darin, E., Leasure, D. R., Dooley, C. A., Chamberlain, H. R., Lázár, A. N., Tschirhart, K., Sinai, C., Hoff, N. A., Fuller, T., Musene, K., Batumbo, A., Rimoin, A. W., & Tatem, A. J. (2022). Household survey data and building footprints. *Nature Communication*, *2022*, 1–10. https://doi.org/10.1038/s41467-022-29094-x

Burdziej, J. (2019). Using hexagonal grids and network analysis for spatial accessibility assessment in urban environments – a case study of public amenities in Toruń. *Miscellanea Geographica*, *23*(2), 99–110. https://doi.org/10.2478/mgrsd-2018-0037

Chamberlain, H. R., Darin, E., & Jochem, W. C. (2023). *Building footprint data for countries in Africa : to what extent are existing data products comparable ?* Research Square. https://doi.org/https://doi.org/10.21203/rs.3.rs-3334423/v1

Cimini, A., Fioravante, P. De, Marinosci, I., Congedo, L., Cipriano, P., Dazzi, L., Marchetti, M., Mugnozza, G. S., & Munaf, M. (2024). Green Urban Public Spaces Accessibility : A Spatial Analysis for the Urban Area of the 14 Italian Metropolitan Cities Based on SDG Methodology. *Land*, *13*(12), 1–28.

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

https://doi.org/10.3390/land13122174

Cressie, T. S. N., & Sahr, E. L. K. A. M. M. K. (2022). Spatial analysis and visualization of global data on multi - resolution hexagonal grids. *Japanese Journal of Statistics and Data Science*, *3*(2020), 107–128. https://doi.org/10.1007/s42081-020-00077-w

Del Pinto, M., Chmutina, K., Palaiologou, F., & Bosher, L. (2024). The Role of the Spatial Network in Urban Disaster Risk Variations: Reimagining the Notion of Spatial Vulnerability at the Urban Scale. *International Journal of Disaster Risk Science*, *15*(3), 303–316. https://doi.org/10.1007/s13753-024-00554-w

Deng, Z., Lee, J., & Gim, T. H. T. (2025). 15-minute city for all? Rethinking the 15-minute city for urban older populations. *Applied Geography*, *184*(July). https://doi.org/10.1016/j.apgeog.2025.103747

Detik News. (2020, September 10). Kebakaran Pasar Baru Bekasi, kerugian capai Rp 500 juta. Detik.com. https://news.detik.com/berita/d-5173372/kebakaran-pasar-baru-bekasi-kerugian-capai-rp-500-juta

Disdamkarmat Bekasi [@disdamkarmatbekasi]. (2025). [Unggahan Instagram terkait layanan darurat] [Posting Instagram]. Instagram. https://www.instagram.com/p/DPuy_q5k8yj/

Esri Indonesia. (n.d.). *ArcGIS Pro* [Produk GIS]. https://esriindonesia.co.id/products/arcgis-pro

Esri. (n.d.-a). *Spatial analysis in ArcGIS Pro—ArcGIS Pro documentation*. https://pro.arcgis.com/en/pro-app/latest/help/analysis/introduction/spatial-analysis-in-arcgis-pro.htm

Esri. (n.d.-b). *ArcGIS Experience Builder | Build web apps with no-code or low-code*. https://www.esri.com/en-us/arcgis/products/arcgis-experience-builder/overview

Esri. (n.d.-c). *Requirements—ArcGIS Experience Builder*. https://doc.arcgis.com/en/experience-builder/latest/get-started/requirements.htm

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Esri. (n.d.-d). *Get started with ArcGIS Experience Builder: Create your first web experience*. https://doc.arcgis.com/en/experience-builder/latest/get-started/create-your-first-web-experience.htm

Esri. (2024). *Aggregate features into bins*. ArcGIS Pro Documentation. https://doc.esri.com/en/arcgis-pro/latest/help/mapping/layer-properties/aggregate-features-into-bins.html

Galiano, G., & Moretti, L. (2021). Consistency of urban roads to manage emergencies: Methodology to identify the minimum network with total connectivity at maximum availability. *Sustainability (Switzerland)*, *13*(20). https://doi.org/10.3390/su132011151

Gao, Q., Lu, S., Zhang, Y., & Li, Z. (2026). An Automated Spatial Computing Method for Urban Public Transport Accessibility Based on Multi-Source Big Data Fusion and Supply – Demand Coupling. *2026 3rd International Conference on Smart City and Information System (ICSCIS)*, 97–101. https://doi.org/10.1109/ICSCIS69190.2026.11453376

Geurs, K. T., & Wee, B. Van. (2004). Accessibility evaluation of land-use and transport strategies : review and research directions. *Journal of Transport Geography*, *12*(2), 127–140. https://doi.org/10.1016/j.jtrangeo.2003.10.005

Godsent Efosa Felix, Uchenna Ukeme, S. O. O. (2025). Geospatial Optimization of Emergency Response Routes Using GIS and Dijkstra's Algorithm: A Case Study of University of Benin Teaching Hospital, Nigeria. *FUDMA Journal of Sciences*, *9*(6), 255–265. https://doi.org/https://doi.org/10.33003/fjs-2025-0906-3691

Gong, H., Wu, W., Yang, X., & Liu, W. (2025). International Journal of Disaster Risk Reduction Enhancing emergency capacity : A gradual cooperative accessibility method considering time-varying traffic congestion and population distribution. *International Journal of Disaster Risk Reduction*, *117*(July 2024), 105203. https://doi.org/10.1016/j.ijdrr.2025.105203

Hanb, Z., Songa, W., & Liue, G. (2015). Assessment of the Comprehensive Accessibility of Regional Road Network on Towhship Scale. *23rd International Conference on Geoinformatics*.

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

https://doi.org/10.1109/GEOINFORMATICS.2015.7378579

Hardi, A. Z., Murad, A. A., Planning, R., Arabia, S., Murad, A. A., Planning, R., & Arabia, S. (2023). Spatial Analysis of Accessibility for Public Transportation , A Case Study in Jakarta , Bus Rapid Transit System (Transjakarta), Indonesia. *Journal of Computer Science*, *19*(10), 1190–1202. https://doi.org/10.3844/jcssp.2023.1190.1202

Janga, B., Asamani, G. P., Sun, Z., & Cristea, N. (2023). A Review of Practical AI for Remote Sensing in Earth Sciences. *Remote Sensing*, *15*(16). https://doi.org/10.3390/rs15164112

Kepolisian Negara Republik Indonesia. (2018). *Standar operasional prosedur (SOP) Korlantas Polri*. Korps Lalu Lintas Polri.

Kementerian Kesehatan Republik Indonesia. (2018). Pedoman Teknis Sistem Penanggulangan Gawat Darurat Terpadu (SPGDT). Kemenkes RI.

Kementerian Kesehatan Republik Indonesia. (2019). *Pedoman teknis ambulans*. Kementerian Kesehatan RI.

Kementerian Pekerjaan Umum Republik Indonesia. (2000). *Keputusan Menteri Negara Pekerjaan Umum Nomor 10/KPTS/2000 tentang ketentuan teknis pengamanan terhadap bahaya kebakaran pada bangunan gedung dan lingkungan*. Kementerian Pekerjaan Umum RI.

Khalid, S. (2024). How to choose a sampling technique and determine sample size for research : A simplified guide for researchers. *Oral Oncology Reports*, *12*(September), 100662. https://doi.org/10.1016/j.oor.2024.100662

Lai, W., Lin, D., Li, Z., Peng, Y., Zhou, W., & Feng, T. (2025). Grid-level assessment on spatial equity in access to urban public facilities by vulnerable groups based on the multi-source data. *Habitat International*, *161*(March 2024). https://doi.org/10.1016/j.habitatint.2025.103423

Liu, P., & Biljecki, F. (2022). A review of spatially-explicit GeoAI applications in Urban Geography. *International Journal of Applied Earth Observation and Geoinformation*, *112*(August), 102936. https://doi.org/10.1016/j.jag.2022.102936

Liu, Y., Id, D. T., Wang, F., & Bano, N. (2023). Impact of regional accessibility on

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

urban residents' income in China : A bidirectional-fixed panel model. *PLoS ONE*, *18*(10 October), 1–19. https://doi.org/10.1371/journal.pone.0289866

Ma, J., Yu, X., Chen, G., Wang, J., & Pu, Y. (2010). Research on Urban Accessibility Distribution Areal Model by Floyd Algorithm and Kriging Interpolation. *IEEE Access*, 1–4. https://doi.org/10.1109/GEOINFORMATICS.2010.5567731

Ma, Y., Li, G., Zhao, L., & Yao, X. (2025). Accuracy Evaluation Method for Vector Data Based on Hexagonal Discrete Global Grid. *ISPRS International Journal of Geo-Information*, *14*(1), 1–20. https://doi.org/10.3390/ijgi14010005

Maria, A., Pozo, M., Priesmeier, P., & Fekete, A. (2025). Measuring spatial accessibility to critical infrastructure: The Access Road Identification Model. *International Journal of Critical Infrastructure Protection*, *49*(February), 100760. https://doi.org/10.1016/j.ijcip.2025.100760

Mazzulla, G., & Pirrone, C. G. (2024). Accessibility Measures : From a Literature Review to a Classification Framework. *ISPRS International Journal of Geo-Information*, *13*(12), 1–23. https://doi.org/https://doi.org/10.3390/ijgi13120450

Mitcel, H. (2022). Hubungan Respon Time Petugas Ambulans Gawat Darurat dengan Keberhasilan Penanganan Pasien Cardiac Arrest. *Indonesian Scholar Journal Of Nursing And Midwifery Science*, *02*(04), 648–655. e-ISSN 2807-310X

Novak, D. C., & Sullivan, J. L. (2014). A link-focused methodology for evaluating accessibility to emergency services. *Decision Support Systems*, *57*, 309–319. https://doi.org/10.1016/j.dss.2013.09.015

Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 114 Tahun 2018 tentang Pedoman Penyelenggaraan Pemerintahan Daerah.

Popescu, C., & Alina, B. (2025). GIS-Based Accessibility Analysis for Emergency Response in Hazard-Prone Mountain Catchments : A Case Study of V ă rbil ă u , Romania. *Water (Switzerland)*, *17*(19), 1–23. https://doi.org/10.3390/w17192803

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Radar Bekasi. (2025, 10 April). Angka kecelakaan lalu lintas di Kota Bekasi melonjak selama masa libur Lebaran 2025. RadarBekasi.id. https://radarbekasi.id/2025/04/10/angka-kecelakaan-lalu-lintas-di-kota-bekasi-melonjak-selama-masa-libur-lebaran-2025/

Rahman, F., & Kumar, S. (2023). Analysis of road network accessibility using graph theory and GIS technology : A study of Bhojpur district , Bihar. *International Journal of Applied Research*, *9*(4), 104–110. https://doi.org/https://doi.org/10.22271/allresearch.2023.v9.i4b.10731 Abstract

Shaaban, K., Asif, M., Ridha, K., & Mohammad, H. (2019). A Strategy for Emergency Vehicle Preemption and Route Selection. *Arabian Journal for Science and Engineering*, *44*(10), 8905–8913. https://doi.org/10.1007/s13369-019-03913-8

Shen, X. (2022). Accessibility calculation and equality evaluation of medical facilities for COVID-19 pandemic treatment : A case study of the Wuhan metropolitan development zone. *PLoS ONE*, *17*(8 August), 1–19. https://doi.org/10.1371/journal.pone.0272458

Suhaimi, N. A., & Naharudin, N. (2023). Ambulance Emergency Responses Vulnerability Analysis Towards Traffic Conditions using GIS. *Built Environment Journal*, *20*(1), 1–12.

Swan, D., Baumstark, L., & France, I. (2021). Does Every Minute Really Count? Road Time as an Indicator for the Economic Value of Emergency Medical Services. *Value in Health*, *25*(3), 400–408. https://doi.org/10.1016/j.jval.2021.09.009

Undang-Undang Republik Indonesia Nomor 22 Tahun 2009 tentang Lalu Lintas dan Angkutan Jalan.

Verma, S., Tech, B. T., Wilson, F., Wang, H., Smith, L., & Tak, H. J. (2023). Impact of Community Socioeconomic Characteristics on Emergency Medical Service Delays in Responding to Fatal Vehicle Crashes. *AJPM Focus*, *2*(4), 100129. https://doi.org/10.1016/j.focus.2023.100129

Vitale, A., & Lamonaca, F. (2025). Advancing Built-Up Area Monitoring Through

UNIVERSITAS
GADJAH MADA
Analisis Aksesibilitas Jaringan Jalan Bagi Kendaraan Darurat Berbasis Koefisien Aksesibilitas dalam Grid Heksagon di Kecamatan Bekasi Timur
Minarni Kukilo Buhana, Karen Slamet Hardjo, S.Si., M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Multi-Temporal Satellite Data Fusion and Machine Learning-Based Geospatial Analysis. *Remote Sensing*, *17*(11), 1–20. https://doi.org/10.3390/rs17111830

Wang, J., Kwan, M. P., Liu, D., Liu, Y., & Wang, L. (2026). From proximity to equity: Rethinking X-minute-city policies for accessibility equity through a spatial optimization perspective. *Journal of Transport Geography*, *132*(February), 104581. https://doi.org/10.1016/j.jtrangeo.2026.104581

Weckmüller, D., & Dunkel, A. (2023). An Application-Oriented Implementation of Hexagonal on-The-Fly Binning Metrics for City-Scale Georeferenced Social Media Data. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives*, *XLVIII*(July), 253–260. https://doi.org/10.5194/isprs-archives-XLVIII-4-W7-2023-253-2023

Yuan, X., Shi, J., & Gu, L. (2021). A review of deep learning methods for semantic segmentation of remote sensing imagery. *Expert Systems With Applications*, *169*(December 2020), 114417. https://doi.org/10.1016/j.eswa.2020.114417

Zhang, J., Zhang, X., Tan, X., & Yuan, X. (2022). Extraction of Urban Built-Up Area Based on Deep Learning and Multi-Sources Data Fusion — The Application of an Emerging Technology in Urban Planning. *Land*, *11*(8), 1–19. https://doi.org/10.3390/land11081212

Zhang, Y., Shi, Z., Xiao, W., & Cao, M. (2025). Analysing the equity of dockless bike-sharing based on service-opportunity accessibility and multi-source urban data. *Travel Behaviour and Society*, *41*(October 2024), 101089. https://doi.org/10.1016/j.tbs.2025.101089

Zhao, Y., & Zhou, Y. (2024). Isochrone-Based Accessibility Analysis of Pre-Hospital Emergency Medical Facilities : A Case Study of Central Districts of Beijing. *ISPRS International Journal of Geo-Information*, *13*(8), 1–19. https://doi.org/10.3390/ijgi13080288

Zheng, F., Zhao, J., Ye, J., & Gao, X. (2023). Metro OD Matrix Prediction Based on Multi-View Passenger Flow Evolution Trend Modeling. *IEEE Transactions on Big Data*, *9*(3), 991–1003. https://doi.org/10.1109/TBDATA.2022.3229836