

**DAFTAR PUSTAKA**

- Adam, J. A. N., Widjajanti, N. and Pratama, C., 2022, Estimation of slip rate and the opak fault geometry based on gnss measurement. In IOP Conference Series: Earth and Environmental Science (Vol, 1039, No, 1, p. 012058.
- Aglia, G., Wijaya, M., and Rahardjo, P.P., 2023, The study of seismic hazard in near-fault areas using probabilistic and deterministic approach. In Journal of the Civil Engineering Forum, pp. 117-126.
- Ali, I. H., 2017, Analisis Pengaruh Peak Ground Acceleration (*PGA*) terhadap Potensi Likuefaksi Kompleks Candi Prambanan Daerah Istimewa Yogyakarta. Universitas Gadjah Mada.
- Army, U.S., 1999, Guidelines on Ground Improvement for Structures and Facilities. US Army Corps of Engineers, ETL, 1110, pp. 1-185.
- Ashadi, A. L., Harmoko, U., Yuliyanto, G., and Kaka, S., I., 2015, Probabilistic seismic-hazard analysis for central java province, indonesia. Bulletin of the Seismological Society of America, 105(3), pp. 1711-1720.
- Badan Geologi Kementerian ESDM, 2019, Atlas Zona Kerentanan Likuefaksi Indonesia, Badan Standarisasi Nasional, 2017, Standar Nasional Indonesia 8460-2017 Persyaratan Perancangan Geoteknik.
- Boore, D. M., Stewart, J. P., Seyhan, E., and Atkinson, G. M., 2014, NGA-West2 equations for predicting *PGA*, PGV, and 5% damped PSA for shallow crustal earthquakes. Earthquake Spectra, 30(3), pp. 1057-1085.
- Boulanger, R. W., and Idriss, I. M., 2014, CPT and SPT Based Liquefaction Triggering Procedures. Report No, UCD/CGM,-14, 1.
- Bowles, J. E., 1997, Foundation Analysis and Design International. Fifth Edition.
- BPJT, 2022, Monitoring Konstruksi Jalan Tol, Jakarta, Kementerian Pekerjaan Umum dan Perumahan Rakyat.
- Brinkgreve, R. B. J., & Broere, W. (2006). Plaxis 2D Version 8 Reference Manual.
- Campbell, K. W., and Bozorgnia, Y., 2014, NGA-West2 ground motion model for the average horizontal components of *PGA*, PGV, and 5% damped linear acceleration response spectra. Earthquake Spectra, 30(3), pp,1087-1115.
- Chiou, B. S. J., and Youngs, R. R., 2014, Update of the Chiou and Youngs NGA model for the average horizontal component of peak ground motion and response spectra. Earthquake Spectra, 30(3), pp. 1117-1153.
- Elnashai, A. S., Kim, J. S., Yun, J. G. and Sidarta, D., 2006, The Yogyakarta Earthquake of May 27, 2006". MAE Report No. 07-2, Mid-America Earthquake Centre, University of Illinois, Urbana-Champaign, USA, 57p.
- Green, R. A., and Bommer, J. J., 2019, What is the smallest earthquake magnitude that needs to be considered in assessing liquefaction hazard?. Earthquake Spectra, 35(3), pp. 1441-1464.
- Hakam, A., 2020, Analisis Praktis Potensi Likuefaksi, Padang. Andalas Press Kampus UNAND-Limau Manis, 25176.



- Hakam, A., Febriansyah, D. and Adji, B. M., 2020, Liquefaction mapping procedure development: density and mean grain size formulations. *Geomate Journal*, 18(70), pp. 155-161.
- Hardiyatmo, H. C., 2020, Perbaikan Tanah. Yogyakarta, Gadjah Mada University Press.
- Hardiyatmo, H. C., 2022, Rekayasa Gempa Untuk Analisis Struktur & Geoteknik. Yogyakarta, Gadjah Mada University Press.
- Hasiholan, F., 2022, Analisis Potensi dan Mitigasi Likuefaksi Pada Timbunan Jalan Tol Solo – Yogyakarta Segmen Kecamatan Polanharto – Kabupaten Klaten. Universitas Gadjah Mada.
- Idriss, I. M., and Boulanger, R. W., 2004, Semi-empirical procedures for evaluating liquefaction potential during earthquakes. *Soil dynamics and earthquake engineering*, 26(2-4), pp. 115-130.
- Idriss, I. M., and Boulanger, R. W., 2008, Soil Liquefaction During Earthquakes. Earthquake Engineering Research Institute.
- Ishihara, K., and Yoshimine, M., 1992, Evaluation of settlements in sand deposits following liquefaction during earthquakes. *Soils and foundations*, 32(1), pp. 173-188.
- Ishihara, K., 1985, Stability of natural deposits during earthquakes. In Proceedings of the 11th international conference on soil mechanics and foundation engineering, AA Balkema Publishers.
- Iwasaki, T., Tokida, K., I., Tatsuoka, F., Watanabe, S., Yasuda, S., and Sato, H., 1982, Microzonation for soil liquefaction potential using simplified methods. In Proceedings of the 3rd international conference on microzonation, Seattle (Vol, 3, No, 2, pp. 1310-1330).
- Kanno, T., Narita, A., Morikawa, N., Fujiwara, H., and Fukushima, Y., 2006, A new attenuation relation for strong ground motion in Japan based on recorded data. *Bulletin of the Seismological Society of America*, 96(3), pp. 879-897.
- Khatimah, N. H., 2021, Analisis Potensi Likuefaksi pada Bangunan Underpass Bandara YIA berdasarkan Simulasi Numeris. Universitas Gadjah Mada.
- Kramer, S. L., 1996, Geotechnical Earthquake Engineering. Pearson Education India.
- Kumar, R., Bhargava, K., and Choudhury, D., 2016, Estimation of engineering properties of soils from field SPT using random number generation. *INAE Letters*, 1, pp. 77-84.
- Kuningsih, T. W., 2015, Analisis Potensi Likuefaksi Pada Tanah Dasar Fondasi Candi Prambanan Berdasar Metode Semi Empiris. Universitas Gadjah Mada.
- Lukic, D., 2018, Friction Angle Of Soil And Rock. *Zbornik radova Građevinskog fakulteta*, 34: 349–357.
- Maduro, I. J., Molina, C.R., Castillo, L. V., Renoud-Lias, B., and Salvi, G.J., 2004, The use of stone columns on settlement and liquefaction susceptible soils.
- Manzanal, D., Bertelli, S., Lopez-Querol, S., Rossetto, T., and Mira, P., 2021, Influence of fines content on liquefaction from a critical state framework: the Christchurch earthquake case study. *Bulletin of Engineering Geology and the Environment*, 80, pp. 4871-4889.



- Moratto, L., Orlecka-Sikora, B., Costa, G., Suhadolc, P., Papaioannou, C., and Papazachos, C. B., 2007, A deterministic seismic hazard analysis for shallow earthquakes in Greece. *Tectonophysics*, 442(1-4), pp. 66-82.
- Muktaf, H., A., Wiyono, and Tampubolon, B. D., 2022, New approach for developing correlation of NSPT and shear-wave velocity (Vs): Bantul case study, *Indonesian Journal on Geoscience*, 9(3).
- Murjaya, J., Pramumijoyo, S., Karnawati, D., Meilano, I., Supendi, P., Ahadi, S., Marliyani, G. I., Syukur, F., Sianipar, D. S., and Krisno, A., 2021, Earthquake risk assessment of the Opak and Merapi-Merbabu active faults to support mitigation program in Yogyakarta province and its vicinity. In *IOP Conference Series: Earth and Environmental Science* (Vol. 851, No. 1, p. 012001), IOP Publishing.
- Nu, N. T., Duong, N. T., and Son, B. T., 2021, Assessment of soil liquefaction potential based on SPT values at some ground profiles in the North Central Coast of Vietnam. *Iraqi Journal of Science*, pp. 2222-2238.
- Pandia, Y., A., W., 2019, Evaluasi Potensi Likuefaksi Studi Kasus Area Landas Pacu New Yogyakarta International Airport. Universitas Gadjah Mada.
- Partono, W., Nazir, R., Kistiani, F., and Sari, U.C., 2021, Seismic microzonation of yogyakarta province based on 2019 risk-targeted maximum considered earthquake. In *International Conference on Rehabilitation and Maintenance in Civil Engineering* (pp. 489-497), Singapore: Springer Nature Singapore.
- Pawirodikromo, W., 2018, The estimated PGA map of the Mw6, 4 2006 Yogyakarta Indonesia earthquake, constructed from the modified mercalli intensity imm. *Bulletin of the New Zealand Society for Earthquake Engineering*, 51(2), pp. 92-104.
- PEER, 2014, Tanggal Akses 10 Januari 2023, <https://ngawest2.berkeley.edu/>.
- Priebe, H. J., 1995, The design of vibro replacement. *Ground engineering*, 28(10), p. 31.
- Pusat Studi Gempa Nasional, 2017, Peta sumber dan Bahaya Gempa Indonesia tahun 2017 (Cetakan pertama). Pusat Penelitian dan Pengembangan Perumahan dan Permukiman, Badan Penelitian dan Pengembangan, Kementerian Pekerjaan Umum dan Perumahan Rakyat.
- Pusat Studi Gempa Nasional, 2022, Peta Deagregasi Bahaya Gempa Indonesia untuk Perencanaan dan Evaluasi Infrastruktur Tahan Gempa. Pusat Penelitian dan Pengembangan Perumahan dan Permukiman, Badan Penelitian dan Pengembangan, Kementerian Pekerjaan Umum dan Perumahan Rakyat.
- Rahman, M. A., Fathani, T. F., Rifa'i, A., and Hidayat, M. S., 2020, Analisis tingkat potensi likuefaksi di kawasan underpass yogyakarta international airport. *Jurnal Rekayasa Sipil*, 16(2), pp. 91-104.
- Rohadi, S., Taruna, R. M., Rudyanto, A., & Heryanto, D. T., 2018, Penentuan ground motion prediction equations (gmpe) dengan metode euclidean dan likelihood untuk Wilayah Jawa Timur. *Jurnal Meteorologi dan Geofisika*, 17(3).
- Rudyanto, A., 2014. Development of strong-motion database for the Sumatra-Java region. The Australian National University.



- Sauri, S., Rifa'i, A., and Hardiyatmo, H., C., 2021, Liquefaction vulnerability analysis using N-SPT value and grain size analysis on Gumbasa Irrigation Canal in the Post-Disaster Petobo Area, Sulawesi. In IOP Conference Series: Earth and Environmental Science (Vol, 930, No, 1, p, 012081), IOP Publishing.
- Seed, H. B., Mori, K., and Chan, C. K., 1975, Influence of seismic history on the liquefaction characteristics of sands. Earthquake Engineering Research Center, University of California.
- Seed H. B., and Idris I. M., 1982, Ground motions and soil liquefaction during earthquakes. Earthquake engineering research insititue, pp. 1-134.
- Setyobudianto, A., Faris, F., and Hardiyatmo, H., C., 2023, Study of liquefaction potential in toll road construction on fine-grained soil. GEOMATE Journal, 25 (112), pp. 64–74.
- Soebowo, E., Tohari, A., and Sarah, D., 2007, Studi potensi likuefaksi di daerah zona patahan Opak Patalan-Bantul, Jogjakarta. Prosiding Geoteknologi LIPI.
- Sonmez, H., 2003, Modification of the liquefaction potential index and liquefaction susceptibility mapping for a liquefaction-prone area (Inegol, Turkey). Environmental Geology, 44, pp,862-871.
- Sosrodarsono, S., dan Nakazawa, K., 2000, Mekanika Tanah & Teknik Pondasi. PT Pradnya Paramita.
- Taruna, R. M., and Setiadi, T. A. P., 2020, Penentuan rumus percepatan tanah akibat gempabumi di Kota Mataram menggunakan metode euclidean distance. Jurnal Sains Dan Teknologi, 9(1), pp. 20-29.
- Tsuchida, H., 1970, Prediction and countermeasure against the liquefaction in sand deposits. In Abstract of the seminar in the Port and Harbor Research Institute.
- USGS, 2006, M6,3 Java Earthquake of May 26 2006, Tanggal Akses 7 Januari 2023, <https://earthquake.usgs.gov/product/poster/20060526/us/1461770047809/poster.pdf>.
- Vaziri, J., Soleimani, A., Hasani, H., Mosavi N. S. M., and Momivand, K., 2022, A comprehensive review on deterministic seismic hazard analysis (*DSHA*) and probabilistic seismic hazard analysis (*PSHA*) Methods.
- Wang, W., 1979, Some findings in soil liquefaction, Earthquake Engineering Department. Water Conservancy and Hydroelectric Power Scientific Research Institute.
- Yang, X., Zhang, Y., and Li, Z., 2020, Embankment displacement plaxis simulation and microstructural behavior of treated-coal gangue. Minerals, 10(3), p.218.
- Yao, K., Rong, Y., Yao, Z., Shi, C., Yang, C., Chen, L., Zhang, B., and Jiang, H., 2022, Effect of water level on dynamic compaction in silty ground of Yellow River alluvial plain. Arabian Journal of Geosciences, 15(1), p. 126.
- Yogatama, B. A., 2012, Analisis Potensi Di Kawasan Kabupaten Bantul Dan Kotamadya Yogyakarta. Universitas Gadjah Mada.
- Yoshimine, M., Nishizaki, H., Amano, K., and Hosono, Y., 2006, Flow deformation of liquefied under constant shear load and its application to analysis of flow slide of infinite slope. Soil Dynamics and Earthquake Engineering, 26(2-4), pp. 253-264.



Youd, T. L., and Idriss, I. M., 2001, Liquefaction resistance of soils: summary report from the 1996 NCEER and 1998 NCEER/NSF workshops on evaluation of liquefaction resistance of soils. Journal of geotechnical and geoenvironmental engineering, 127(4), pp. 297-313.

Yulianisa, 2023, Pengaruh Likuefaksi Terhadap Stabilitas Fondasi Tiang Bor Pada Pembangunan Jalan Tol Solo Yogyakarta - NYIA Kulon Progo STA, 16+700 – 22+500. Universitas Gadjah Mada.