



DAFTAR PUSTAKA

- AASHTO. (1998). *LRFD Bridge Design Specifications* (2 ed.). American Association of State Highway and Transportation Officials, Washington, DC.
- Aini, I. (2024). *Pengaruh Potensi Likuifaksi dan Stabilitas Fondasi Tiang Bor pada Jembatan (Studi Kasus: Pembangunan Jembatan Sungai Wampu Proyek Jalan Tol Ruas Binjai – Langsa)*. Universitas Gadjah mada.
- Aini, I., Wilopo, W., & Fathani, T. F. (2024). Development of Peak Ground Acceleration Using a Non-Linear Approach To Evaluate Liquefaction Potential in Sei Wampu Bridge, Langkat, North Sumatra, Indonesia. *ASEAN Engineering Journal*, 14(3), 41–52. <https://doi.org/10.11113/aej.V14.20606>
- Badan Standardisasi Nasional Indonesia. (2016a). *SNI 1725:2016 Pembebanan untuk Jembatan*.
- Badan Standardisasi Nasional Indonesia. (2016b). *SNI 2833:2016 Perencanaan jembatan terhadap beban gempa*.
- Badan Standardisasi Nasional Indonesia. (2017). *SNI 8460:2017 Persyaratan perancangan geoteknik*.
- Badan Standardisasi Nasional Indonesia. (2020). *SNI 8899:2020 Tata cara pemilihan dan modifikasi gerak tanah*.
- Bommer, J. J., & Acevedo, A. B. (2004). The Use of Real Earthquake Accelerograms as Input to Dynamic Analysis. *Journal of Earthquake Engineering*, 8(1), 43–91. <https://doi.org/10.1080/13632460409350521>
- Boulanger, R. W., & Idriss, I. M. (2014). *CPT and SPT Based Liquefaction Triggering Procedures*. Center for Geotechnical Modeling, Department of Civil and Environmental Engineering, University of California.
- Brandenberg, S. J., Bellana, N., & Shantz, T. (2010). Shear wave velocity as function of standard penetration test resistance and vertical effective stress at California bridge sites. *Soil Dynamics and Earthquake Engineering*, 30(10), 1026–1035. <https://doi.org/10.1016/j.soildyn.2010.04.014>
- Broms, B. . (1964a). Lateral Resistance of Piles in Cohesive Soils. *Journal of the Soil Mechanics and Foundations Division*, 90(SM2). <https://doi.org/10.1061/jsfea.0000675>
- Broms, B. . (1964b). The Lateral Resistance of Piles in Cohesionless Soils. *Journal of the Soil Mechanics and Foundations Division*, 90(SM2), 123–156.
- Buana, T. W., Hermawan, W., Rahdiyana, R. N., Wahyudin, R. W., Hasibuan, G., Wiyono, & Sollu, W. P. (2019). Atlas Zona Kerentanan Likuefaksi Indonesia. In *Badan Geologi Kementerian Energi dan Sumber Daya Mineral*. Kementerian Energi dan Sumber Daya Mineral.
- Darendeli, M. ., Stokoe, K. ., Gilbert, R. ., Menq, F. ., & Choi, W. . (2001). *Development of a New Family of Normalized Modulus Reduction and Material Damping Curves*. Department of Ciivil, Architectural and Environmental Engineering, The University of Texas, Austin, Texas.
- Direktorat Jenderal Bina Marga. *Aplikasi LINI Binamarga*. Diambil 13 Juni 2024, dari <https://lini.binamarga.pu.go.id/>



Elnashai, A. S., Kim, S. J., Yun, G. J., & Sidarta, D. (2007). *The Yogyakarta Earthquake of May 27, 2006*. Mid-America Earthquake Center.

Galag, C. T. S. A. (2022). *Kajian Potensi Likuefaksi pada Dinding Penahan Tanah dan Timbunan Sisi Parangtritis Jembatan Kretek 2*. Universitas Gadjah Mada.

Geodata Rekaguna. (2022). *Laporan Faktual Investigasi Tanah Jembatan Srandonan 3*.

Green, R. A., & Bommer, J. J. (2019). What is the Smallest Earthquake Magnitude that Needs to be Considered in Assessing Liquefaction Hazard? *Earthquake Spectra*, 35(3), 1441–1464. <https://doi.org/10.1193/032218EQS064M>

Groholski, D. R., Hashash, Y. M. A., Musgrove, M., Harmon, J., & Kim, B. (2015). Evaluation of 1-D Non-linear Site Response Analysis using a General Quadratic / Hyperbolic Strength-Controlled Constitutive Model. *6th International Conference on Earthquake Geotechnical Engineering*.

Hardiyatmo, H. C. (2020a). *Analisis dan Perancangan Fondasi I* (4 ed.). Gadjah Mada University Press, Yogyakarta.

Hardiyatmo, H. C. (2020b). *Analisis dan Perancangan Fondasi II* (5 ed.). Gadjah Mada University Press, Yogyakarta.

Hardiyatmo, H. C. (2022). *Rekayasa Gempa Untuk Analisis Struktur & Geoteknik*. Gadjah Mada University Press, Yogyakarta.

Hashash, Y. M. ., Musgrove, M. ., Harmon, J. ., Ilhan, O., Xing, G., Numanoglu, O., Groholski, D. ., Phillips, C. ., & Park. D. (2020). *DEEPSOIL 7.0, User Manual*. Board of Trustees of University of Illinois at Urbana - Champaign.

Hashash, Y. M. A., & Park, D. (2001). Non-linear one-dimensional seismic ground motion propagation in the Mississippi embayment. *Engineering Geology*, 62, 185–206.

Hatanaka, M., & Uchida, A. (1996). Empirical Correlation Between Penetration Resistance and Internal Friction Angle of Sandy Soils. *Soils and Foundations*, 36(4), 1–9. https://doi.org/10.3208/sandf.36.4_1

Hwang, H., Pezeshk, S., Lin, Y., He, J., & Chiu, J. (2001). *Generation of Synthetic Ground Motion*. Mid-America Earthquake Center.

Idriss, I. M., & Boulanger, R. W. (2008). *Soil Liquefaction During Earthquake*. Earthquake Engineering Research Institute.

Ishihara, K. (1985). Stability of natural deposits during earthquakes. *Proc. 11th international conference on soil mechanics and foundation engineering, San Francisco*, 1, 321–376.

Ishihara, K., & Yoshimine, M. (1992). Evaluation of settlements in sand deposits following liquefaction during earthquakes. *Soils and Foundations*, 32(1), 178–188. <https://doi.org/10.3208/sandf1972.32.173>

Iwasaki, T., Arakawa, T., & Tokida, K. I. (1984). Simplified procedures for assessing soil liquefaction during earthquakes. *International Journal of Soil Dynamics and Earthquake Engineering*, 3(1), 49–58. [https://doi.org/10.1016/0261-7277\(84\)90027-5](https://doi.org/10.1016/0261-7277(84)90027-5)

Japan Society of Civil Engineers, & Architectural Institute of Japan. (2006). *Provisional Report of the May 27 , 2006 , Mid Java Earthquake , Indonesia*.

Johannessen, I. ., & Bjerrum, L. (1965). Measurement of the Compression of a Steel Pile to Rock due to Settlement of the Surrounding Clay. *Proc. 6th Conf. SMFE*, 2, 261–264.



- Kanakeswararao, T., & Ganesh, B. (2017). Analysis of Pile Foundation Subjected to Lateral and Vertical Loads. *International Journal of Engineering Trends and Technology*, 46(2), 113–127. <https://doi.org/10.14445/22315381/ijett-v46p219>
- Kanno, T., Narita, A., Morikawa, N., Fujiwara, H., & 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), 879–897. <https://doi.org/10.1785/0120050138>
- Kempton, J. J., Stewart, J. P., & Eeri, M. (2006). *Prediction Equations for Significant Duration of Earthquake Ground Motions Considering Site and Near-Source Effects*. 22(4), 985–1013. <https://doi.org/10.1193/1.2358175>
- Kishida, H. (1969). Characteristics of Liquefied Sands during Mino Owari, Tohnankai, and Fukui Earthquakes. *Soils and Foundations*, IX(1), 75–92.
- Knappett, J. A., & Madabhushi, S. P. (2008). Liquefaction-Induced Settlement of Pile Groups in Liquefiable and Laterally Spreading Soils. *Journal of Geotechnical and Geoenvironmental Engineering*, 134(11), 1609–1618. [https://doi.org/10.1061/\(asce\)1090-0241\(2008\)134:11\(1609\)](https://doi.org/10.1061/(asce)1090-0241(2008)134:11(1609))
- Kramer, S. L. (1996). *Geotechnical Earthquake Engineering* (B. Stenquist, I. Zucker, & M. Weist (ed.)). Prentice-Hall, Inc.
- Kristianto, A., Surjandari, N. S., & Djarwanti, N. (2017). Analisis Defleksi Lateral Tiang Tunggal Free-end Pile pada Tanah Kohesif. *e-Jurnal MATRIKS TEKNIK SIPIL*, 36, 615–622.
- Kurnia, Z., Muhammad Riza, & Vitta Pratiwi. (2023). Pendekatan Metode Broms Terhadap Metode P-Y Curve Pada Analisis Kapasitas Dukung Lateral Pondasi Tiang. *Jurnal Teknik Sipil*, 17(3), 174–180. <https://doi.org/10.24002/jts.v17i3.7703>
- Lee, Y., & Wang, Y. (2015). *An empirical equation of effective shaking duration for moderate to large earthquakes*. August. <https://doi.org/10.1007/s11069-014-1398-7>
- Loehr, J. ., Bowders, J. ., Ge, L., Likos, W. ., Luna, R., Maerz, N., Rosenblad, B. ., & Stephenson, R. . (2011). *Engineering Policy Guidelines for Design of Drilled Shafts*.
- Mandiri Adhi Pratama, P. (2022). *Laporan Survei Penyelidikan Tanah Jembatan Srandonan III*, Yogyakarta.
- Mase, L. Z. (2017a). Experimental Liquefaction Study of Southern Yogyakarta Using Shaking Table. *Jurnal Teknik Sipil : Jurnal Teoritis dan Terapan Bidang Rekayasa Sipil*, 24(1), 11–17. <https://doi.org/10.5614/jts.2017.24.1.2>
- Mase, L. Z. (2017b). Shaking table test of soil liquefaction in southern Yogyakarta. *International Journal of Technology*, 8(4), 747–760. <https://doi.org/10.14716/ijtech.v8i4.9488>
- Mase, L. Z., Sugianto, N., & Refrizon. (2021). Seismic hazard microzonation of Bengkulu City, Indonesia. *Geoenvironmental Disasters*, 8(1), 1–29. <https://doi.org/10.1186/s40677-021-00178-y>
- Meidji, I. U., Pimpilemba, N., Leopatty, H., Kurniawan, M., Ahmad, M., & Jayadi, H. (2023). Shear wave velocity analysis for site classification of Tadulako University using microtremor measurements. *AIP Conference Proceedings*, August. <https://doi.org/10.1063/5.0133465>



- Minardi, S., Aprianti, N., & Solikhin, A. (2021). Local Geology and Site Class Assessment Based on Microtremor Data in North Lombok. *Indonesian Physical Review*, 4(2), 67–78. <https://doi.org/10.29303/ipr.v4i2.96>
- Moehle, J., Bozorgnia, Y., Jayaram, N., Jones, P., Rahnama, M., & Shome, N. (2011). Case Studies of the Seismic Performance of Tall Buildings Designed by Alternative Means. In *Pacific Earthquake Engineering Research Center*. Pacific Earthquake Engineering Research Center.
- Motamed, R., Towhata, I., Honda, T., Tabata, K., & Abe, A. (2013). Pile group response to liquefaction-induced lateral spreading: E-Defense large shake table test. *Soil Dynamics and Earthquake Engineering*, 51, 35–46. <https://doi.org/10.1016/j.soildyn.2013.04.007>
- Murjaya, J., Pramumijoyo, S., Karnawati, D., Daryono, Meilano, I., Supendi, P., Ahadi, S., Marliyani, G. I., Imananta, Syukur, F., Sianipar, D. S., & Krisno, A. (2021). Earthquake risk assessment of the Opak and Merapi-Merbabu active faults to support mitigation program in Yogyakarta province and its vicinity. *IOP Conference Series: Earth and Environmental Science*, 851(1). <https://doi.org/10.1088/1755-1315/851/1/012001>
- National Center for Earthquake Engineering Research (NCEER). (1997). Application of K_a and K_σ Correction Factors. *Proceedings of the NCEER workshop on liquefaction resistance of soils, Technical report NCEER - 97-0022*, 167–190.
- Nurdiansyah, F. (2023). *Analisis Potensi Likuefaksi dan Pengaruhnya terhadap Fondasi Tiang Pancang Pekerjaan Slab on Pile Jembatan Kretek 2*. Universitas Gadjah Mada.
- Nurhaci, D. S., Setianto, A., & Wilopo, W. (2024). Analysis and Evaluation of Earthquake Hazard Zones Based on Spatial Models for Regency Regional Development Bantul. *IOP Conference Series: Earth and Environmental Science*, 1373(1). <https://doi.org/10.1088/1755-1315/1373/1/012014>
- O'Neill, M. W., & Reese, L. C. (1989). New Design Method for Drilled Shaft From Common Soil and Rock Test. *Foundation Eng. Current Principles and Practices*, 1026–1039.
- Pacific Earthquake Engineering Research Center (PEER). *Pacific Earthquake Engineering Research Center Ground Motion Database*. Diambil 7 Juni 2024, dari <https://ngawest2.berkeley.edu/>
- Poulos, H. ., & Davis, E. . (1980). Pile foundation analysis and design. In *John Wiley and Sons* (Vol. 18, Nomor 3). John Wiley and Sons. <https://doi.org/10.11139/t81-056>
- Prakash, S., & Sharma, H. D. (1990). *Pile Foundations in Engineering Practice*. John Wiley and Sons, Inc.
- Pusat Studi Gempa Nasional. (2022). *Peta Deagregasi Bahaya Gempa Indonesia untuk Perencanaan dan Evaluasi Infrastruktur Tahan Gempa*. Direktorat Bina Teknik Permukiman dan Perumahan.
- Rahardjo, W., Sukandarrumidi, & Rosidi, H. M. . (2012). *Peta Geologi Lembar Yogyakarta*. Kementerian Energi dan Sumber Daya Mineral.
- Rahpeyma, S., Halldorsson, B., Hrafnkelsson, B., & Darzi, A. (2023). Frequency-dependent site amplification functions for key geological units in Iceland from a Bayesian hierarchical model for earthquake strong-motions. *Soil Dynamics and Earthquake Engineering*, 168. <https://doi.org/10.1016/j.soildyn.2023.107823>



Reese, L. ., & Matlock, H. (1956). Non Dimensional Solutions for Laterally Loaded Piles with Soil Modulus Assumed Proporsional to Depth. *Prof Of The 8th Texas Conf. On Soil Mechanics and Foundation Engineering*, 1–41.

Rocscience Inc. (2022a). *RSPile Axially Loaded Piles Theory Manual*.

Rocscience Inc. (2022b). *RSPile Laterally Loaded Piles Theory Manual*.

Sarah, D., & Soebowo, E. (2013). Liquefaction due to the 2006 Yogyakarta Earthquake: Field Occurrence and Geotechnical Analysis. *Procedia Earth and Planetary Science*, 6, 383–389. <https://doi.org/10.1016/j.proeps.2013.01.050>

Sasanti, C. A. (2015). *Studi Potensi Soil Liquefaction Di Rencana Lokasi Genting Oil Kasuri Papua Barat* [Institut Teknologi Sepuluh Nopember]. <http://repository.its.ac.id/51291/>

Seed, H. B., Tokimatsu, K., Harder, L. F., & Chung, R. M. (1985). The influence of SPT procedures in soil liquefaction resistance evaluations: Berkeley, University of California. *Journal of Geotechnical Engineering*, 111(12), 15.

Seed, R. B., Cetin, K. O., Moss, R. E. S., Kammerer, A. M., & Wu, J. (2001). Recent Advances in Soil Liquefaction Engineering and Seismic Site Response Evaluation. *Fourth International Ceonference in Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*.

Sherif, M. ., Ishibashi, I., & Tscuchiya, C. (1977). Saturation Effects on Initial Soil Liquefaction. *Journal of the Geotechnical Engineering Division, ASCE*, 103(GT8).

Simanjuntak, A. V. ., & Olymphia, O. (2017). Perbandingan Energi Gempa Bumi Utama dan Susulan (Studi Kasus : Gempa Subduksi Pulau Sumatera dan Jawa). *Jurnal Fisika FLUX*, 14(1), 19. <https://doi.org/10.20527/flux.v14i1.3776>

Sinha, S. K., Ziotopoulou, K., & Kutter, B. L. (2021). Centrifuge Study of Downdrag on Axially Loaded Piles in Liquefiable Soils. *Proceedings of 20th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2022)*, 1–6.

Skempton, A. W. (1986). *Standard penetration test procedures and the effects in sands of overburden pressure, relative density, particle size, ageing and overconsolidation*. 3, 425–447.

Skempton, A. W., & MacDonald, D. H. (1956). The Allowable Settlements of Building. *Structural and Building Division Meeting*, 50, 727–768.

Sonmez, H., & Gokceoglu, C. (2005). A liquefaction severity index suggested for engineering practice. *Environmental Geology*, 48(1), 81–91. <https://doi.org/10.1007/s00254-005-1263-9>

Supriyadi, B., & Muntohar, A. S. (2017). *Jembatan* (7 ed.). Beta Offset Kavling Madukismo 28, Yogyakarta.

Surat Edaran Direktur Jenderal Bina Marga Nomor : 06/SE/Db/2021 tentang Panduan Praktis Perencanaan Teknis Jembatan, Pub. L. No. 02/M/BM/2021 (2021).

Surat Edaran Direktur Jenderal Bina Marga Nomor : 07/SE/Db/2022 Tentang Pedoman Pembahasan Penyelenggaraan Keamanan Jembatan Khusus (2022).

Tandirerung, R. (2017). *Kajian Potensi Likuifaksi di Daerah Pantai Pandansimo, Bantul, Daerah Istimewa Yogyakarta*. Universitas Gadjah Mada.

Tenaga Ahli Struktur Jembatan. (2022). *Laporan Tenaha Ahli Struktur Jembatan Srandardakan 3 (Jembatan Pandansimo)*.



Terzaghi, K. (1955). Evaluation of Coefficient of Subgrade Reaction. *Geotechnique*, 5(4), 297–326.

The B. John Garrick Institute for the Risk Sciences. *Natural Hazards Risk and Resiliency Research Center (NHR3)*. Diambil 11 Juni 2024, dari <https://www.risksciences.ucla.edu/>

Tim Pusat Studi Gempa Nasional. (2017). *Peta Sumber dan Bahaya Gempa Indonesia Tahun 2017* (Pertama). Kementerian Pekerjaan Umum dan Perumahan Rakyat.

Tsuchida, T. (1970). Prediction and Countermeasure Against the Liquefaction in Sand Deposits. *The Seminar of the Port and Harbour Research Institute*, 1–33.

Xu, L. Y., Song, C. X., Chen, W. Y., Cai, F., Li, Y. Y., & Chen, G. X. (2021). Liquefaction-induced settlement of the pile group under vertical and horizontal ground motions. *Soil Dynamics and Earthquake Engineering*, 144(December 2020), 106709. <https://doi.org/10.1016/j.soildyn.2021.106709>

Yoshimine, M., Nishizaki, H., Amano, K., & Hosono, Y. (2006). Flow deformation of liquefied sand under constant shear load and its application to analysis of flow slide of infinite slope. *Soil Dynamics and Earthquake Engineering*, 26(2-4 SPEC. ISS.), 253–264. <https://doi.org/10.1016/j.soildyn.2005.02.016>

Youd, T. L. (1993). Liquefaction-Induced Damage to Bridges. *Transportation Research Record*, 1411, 35–41.

Youd, T. L., & 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), 297–313. [https://doi.org/10.1061/\(asce\)1090-0241\(2001\)127:4\(297\)](https://doi.org/10.1061/(asce)1090-0241(2001)127:4(297))

Youd, T. L., Tinsley, J. C., Perkins, D. M., & King, E. J. (1979). Liquefaction Potential Map of San Fernando Valley, California. *Geological Survey Circular*, 807, 37–46.

Yudapratama, V., Arbianto, R., & Yuono, T. (2022). Analisis Kapasitas Dukung Lateral Kelompok Tiang Bored Pile pada Tanah Non Kohesif. *Journal of Civil Engineering and Infrastructure Technology*, 1(1).

Yulianisa. (2023). *Pengaruh Likuefaksi terhadap Stabilitas Fondasi Tiang Bor pada Pembangunan Jalan Tol Solo – Yogyakarta – NYIA Kulonprogo STA. 16+700 – 22+500*. Universitas Gadjah Mada.

Zakariya, A. (2022). *Pengaruh Potensi Likuefaksi dan Mitigasi Sistem Fondasi Bored Pile Jembatan Kretek 2 Yogyakarta*. Universitas Gadjah Mada.

Zakariya, A., Nurdiansyah, F., Galag, C. T. S. A., & Situmorang, J. (2022). Analisis Kuantitatif dan Kualitatif Potensi Likuefaksi di Area Tanah Kepasiran Medium-Padat Dekat Sesar Opak. *Jurnal Jalan-Jembatan*, 39(2), 74–87.