

DAFTAR PUSTAKA

- Abdurrokhim, 2017, Stratigrafi Sikuen Formasi Jatiluhur di Cekungan Bogor, Jawa Barat: Bulletin of Scientific Contribution Geology, v. 15, p. 167–172.
- Akram, M.S., Ahmed, L., Ullah, M.F., Rehman, F., dan Ali, M., 2018, *Numerical Verification of Empirically Designed Support for a Headrace Tunnel: Civil Engineering Journal*, v. 4, p. 2575, doi:10.28991/cej-03091182.
- Asiyanto, 2012, Metode Konstruksi Terowongan: Jakarta, Penerbit Universitas Indonesia (UIPress).
- American Standard Testing and Material*, 1998, ASTM-D-2216-98, *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass*: ASTM International, v. 04, p. 1–5.
- American Standard Testing and Material*, 2000, ASTM-D-2937-00, *Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method 1*: ASTM International, v. 04, p. 3–7.
- American Standard Testing and Material*, 1995, ASTM-D-2938-95, *Standard Test Method for Unconfined Compressive Strength of Intact Rock Core*: ASTM International, v. 04, p. 1–3.
- American Standard Testing and Material*, 2000, ASTM-D-4318-00, *Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*: ASTM International, v. 04, p. 1–14.
- American Standard Testing and Material*, 2006, ASTM-D-54-06e, *Standard Test Methods for Specific Gravity of Soil Solids by Water Pycnometer*: ASTM International, v. i, p. 1–7.
- American Standard Testing and Material*, 2003, ASTM-D-5731-02, 2003, *Standard Test Method for Determination of the Point Load Strength Index of Rock*: ASTM International, v. 22, p. 1–9.
- Badan Standardisasi Nasional, 2017, SNI 8460:2017 Persyaratan Perancangan Geoteknik, Jakarta: Badan Standarisasi Nasional, p. 1–303.
- Badan Standardisasi Nasional, 1994, SNI 03-3637-1994 Metode Pengujian Berat Isi Tanah Berbutir Halus Dengan Cetakan Benda Uji: Jakarta: Badan Standarisasi Nasional, p. 14.
- Badan Standardisasi Nasional, 2008a, SNI 1964:2008 Cara uji berat jenis tanah: Jakarta: Badan Standarisasi Nasional, p. 14.
- Badan Standardisasi Nasional, 2008b, SNI 1965:2008 Cara uji penentuan kadar air untuk tanah dan batuan di laboratorium: Jakarta: Badan Standarisasi Nasional, p. 16.
- Badan Standardisasi Nasional, 2008c, SNI 1966:2008 Cara uji penentuan batas plastis dan indeks plastisitas tanah: Jakarta: Badan Standarisasi Nasional, p. 15.
- Badan Standardisasi Nasional, 2008d, SNI 1967:2008 Cara uji penentuan batas cair tanah: Jakarta: Badan Standarisasi Nasional, p. 25.
- Badan Standardisasi Nasional, 2008e, SNI 3422:2008 Cara Uji Penentuan Batas Susut Tanah: Jakarta: Badan Standarisasi Nasional, p. 18.

Badan Standardisasi Nasional, 2011, SNI 2824:2011 Cara uji geser langsung batu, Jakarta: Badan Standardisasi Nasional, p. 18.

Barton, N., 2002, *Some new Q-value correlations to assist in site characterisation and tunnel design: International Journal of Rock Mechanics and Mining Sciences*, v. 39, p. 185–216.

Barton, N., dan Grimstad, E., 2014, *Tunnel and cavern support selection in Norway , based on rock mass classification with the Q- system: Norw Tunneling Society*, v. 23, p. 45–77.

Barton, N., Lien, R., Lunde, J., Barton, L., dan Lunde, 1974, *Engineering Classification of Rockmasses for Design of Tunnel Support: Rock Mechanics*, v. 6, p. 189–236.

Le Bas, M.J., dan Streckeisen, A.L., 1991, *The IUGS systematics of igneous rocks: Journal of the Geological Society*, v. 148, p. 825–833.

Bieniawski, Z.T., 1989, *Engineering rock mass classifications: a complete manual for engineers and geologists in mining, civil, and petroleum engineering: New York, John. Wiley and Sons*, 249 p.

Brahmantyo, B., dan Salim, B., 2006, *Klasifikasi Bentuk Muka Bumi (Landform) untuk Pemetaan Geomorfologi pada Skala 1:25.000 dan Aplikasinya untuk Penataan Ruang*: v. 1, p. 71–79, doi:10.31227/osf.io/8ah6v.

Compton, R.R., 1985, *Geology In The Field: Utah, U.S.A*, John Wiley and Son, Inc, 385 p.

DAS, B.M., 2010, *Principles of Geotechnical Engineering* (H. Gowans & N. Saundercook, Eds.): Cengage Learning, v. 7, 662 p.

Fathoni, M.R., 2013, *Pemodelan Pemasangan Penyangga Sementara Menggunakan Perangkat Lunak Phase 2 Pada Headrace Tunnel Chainage 155 m – 265 m di PLTA Tulis Kabupaten Banjarnegara, Jawa Tengah: Geological Engineering E-Journal*, v. 5, p. 167–182.

Febyani, S., Pradhana, M.F., Rivaldy, M., Syafri, I., Nur, A.A., Embara, P., dan Nugroho, S.D., 2020, *Analisis Kerentanan Gempa Pada Jalur Sesar Baribis Menggunakan Metode Microearthquake (MEQ) S: Bulletin of Scientific Contribution: Geology*, v. 17, p. 205–212.

Fisher, R. V., dan Schmincke, H.-U., 1984, *Pyroclastic Rocks*, Berlin, Heidelberg, Springer Berlin Heidelberg, v. 1, 465 p., doi:10.1007/978-3-642-74864-6.

Gattinoni, P., Pizzarotti, E.M., dan Scesi, L., 2014, *Engineering Geology for Underground Works*: v. 53, 1689–1699 p.

Genis, M., Basarir, H., Ozarslan, A., Bilir, E., dan Balaban, E., 2007, *Engineering geological appraisal of the rock masses and preliminary support design, Dorukhan Tunnel, Zonguldak, Turkey: Engineering Geology*, v. 92, p. 14–26, doi:10.1016/j.enggeo.2007.02.005.

Guo, S. feng, Qi, S. wen, dan Saroglou, C., 2020, *A-BQ, a classification system for anisotropic rock mass based on China National Standard: Journal of Central South University*, v. 27, p. 3090–3102, doi:10.1007/s11771-020-4531-7.

Harber, A.J., Nettleton, I.M., Matheson, G.D., McMillan, P., dan Butler, A.J., 2011, *Rock engineering guides to good practice. Road rock slope excavation: Published Project Report PPR556: Transport Research Laboratory, Scotland*, 124 p.

- Haryanto, I., 2006, Struktur Geologi Paleogen dan Neogen di Jawa Barat: *Bulletin of scientific contribution*, v. 4, p. 88–95.
- Haryanto, I., Hutabarat, J., Sudradjat, A., Ilmi, N.N., dan Sunardi, D.E., 2017, Tektonik Sesar Cimandiri, Provinsi Jawa Barat: *Bulletin of Scientific Contribution*, v. 15, p. 255–274.
- Heidarzadeh, A., dan Hosseinitoudeshki, V., 2013, *The effect of asynchronous installation of composite support system on the convergence in circular tunnels: Middle East Journal of Scientific Research*, v. 17, p. 157–162, doi:10.5829/idosi.mejsr.2013.17.02.11995.
- Hencher, S., 2012, *Practical Engineering Geology*: London. CRC Press, v. 1, 464 p, <https://doi.org/10.1201/b12836>.
- Hoek, E., 1998, *Tunnel support in weak rock: Symposium of Sedimentary Rock Engineering*, p. 1–13.
- Hoek, E., Carranza, C., dan Corkum, B., 2002, *Hoek-brown failure criterion – 2002 edition: Proc. NARMS-TAC Conference*, v. 1, p. 267–273.
- Hoek, E., Carter, T.G., dan Diederichs, M.S., 2013, *Quantification of the geological strength index chart: 47th US Rock Mechanics / Geomechanics Symposium 2013*, v. 3, p. 1757–1764.
- Hoek, E., dan Diederichs, M.S., 2006, *Empirical estimation of rock mass modulus: International Journal of Rock Mechanics and Mining Sciences*, v. 43, p. 203–215, doi:10.1016/j.ijrmms.2005.06.005.
- Hoek, E., Kaiser, P., dan Bawden, W.F., 1993, *Support of Underground Excavations in Hard Rock: Environmental & Engineering Geoscience*, p. 215, doi:10.2113/gseegeosci.II.4.610.
- International Society for Rock Mechanics, 1981, *Rock characterisation, testing and monitoring. ISRM suggested methods: International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts*, v. 18, p. 109, doi:10.1016/0148-9062(81)90524-6.
- Japan Society of Civil Engineers, 2007, *Standard Specifications for Tunneling-2016: Mountain Tunnels*: Japan Society of Civil Engineers, p. 1–282.
- Karakuş, M., dan Fowell, R.J., 2004, *A An insight into the New Austrian Tunnelling Method (NATM): ROCMEC'2004-VIIth Regional Rock Mechanics Symposium*, Sivas, Turkiye, p. 14.
- Khan, B., Jamil, S.M., Jafri, T.H., dan Akhtar, K., 2019, *Effects of different empirical tunnel design approaches on rock mass behaviour during tunnel widening: Heliyon*, v. 5, p. e02944, doi:10.1016/j.heliyon.2019.e02944.
- Khlystov, N., Lizardo, D., Matsushita, K., dan Zheng, J., 2013, *Uniaxial Tension and Compression Testing of Materials*, 3.032 Lab Report.
- Kishore, K., dan Jaiswal, S., 2020, *An Analytical Modeling of Steel Fiber Reinforced Concrete as a Structural Member: International Research Journal of Engineering and Technology (IRJET)*, p. 2643–2653.

- Maidl, B., Thewes, M., dan Maidl, U., 2013, *Handbook of Tunnel Engineering*, Berlin: Wilhelm Ernst & Sohn, v. 1, 1–454 p., doi:10.1002/9783433603499.
- Marinos, V., 2017, *A revised, geotechnical classification GSI system for tectonically disturbed heterogeneous rock masses, such as flysch: Bulletin of Engineering Geology and the Environment*, v. 78, p. 899–912, doi:10.1007/s10064-017-1151-z.
- Marinos, P., dan Hoek, E., 2000, *GSI: A geologically friendly tool for rock mass strength estimation: ISRM International Symposium 2000*.
- Marinos, P., Marinos, V., dan Hoek, E., 2007, *Geological Strength Index (GSI). A characterization tool for assessing engineering properties for rock masses: Underground Works under Special Conditions, Proceedings of the Workshop (W1) on Underground Works under Special Conditions*, p. 13–21, doi:10.1201/noe0415450287.ch2.
- McPhie, J., Doyle, M., dan Allen, R., 1993, *Volcanic textures: A guide to the interpretation of textures in volcanic rocks*, Tasmania: University of Tasmania v. 64, 191 p., doi:10.1016/0377-0273(95)90002-0.
- Meirinhos, J.M. de F., 2015, *Hydrogeomechanics for rock engineering: coupling subsurface hydrogeomechanical assesment and hydrogeotechnical mapping on fractured rock masses*. Instituto Superior de Engenharia do Porto, v. 1, p. 1-163.
- Ministry of Railways of The People's Republic of China, 2005, *Code for design on Tunnel of Railway - TB10003-2005*, Beijing: China Railway Publishing House, p. 100.
- Moldovan, A.R., dan Popa, A., 2012, *Finite element modelling for tunneling excavation Rezumat: Acta Technica Napocensis: Civil Engineering & Architecture*, v. 55.
- Moody, J.D., dan Hill, M.J., 1956, *Wrench Fault Tectonics: Bulletin of the Geological Society of America*.
- Mount, J., 1985, *Mixed siliciclastic and carbonate sediments: a proposed first-order textural and compositional classification: Sedimentology*, v. 32, p. 435–442, doi:10.1111/j.1365-3091.1985.tb00522.x.
- Norwegian Geotechnical Institute, 2015, *Hand Book: Using the Q-system*, Oslo: Norway, 57 p.
- Nichols, G., 2009, *Sedimentology and Stratigraphy: West Sussex, UK, A John Wiley & Sons, Ltd*, v. 20, 7 p.
- Palmström, A., 2009, *Combining The RMR, Q, AND Rmi Classification System: Tunnelling and Underground Space Technology*, v. 24, I. 4, p. 491-492, <https://doi.org/10.1016/j.tust.2008.12.002>.
- Palmström, A., 1993, *The New Austrian Tunneling Method (NATM): Norges Geotekniske Institutt*.
- Pasaribu, M., Mudiana, W., dan Sunarya, Y., 1998, *Peta Hidrogeologi Regional Lembar Cianjur, Bandung: Direktorat Geologi Tata Lingkungan, skala 1:100.000, 1 lembar*.
- Permana, S.T., M.T, L.A., Sastrawijaya, C.W., dan Hermawan, D., 1970, *Karakteristik Mineral Lempung Hasil Ubahan Pada Sumur Lw-1 Dan Lw-2 Dengan Menggunakan Metode Difraksi Sinar-X Pada Sistem Panas Bumi Gunung Lawu: Buletin Sumber Daya Geologi*, v. 15, p. 1–17, doi:10.47599/bsdg.v15i1.293.

- Pettifer, G.S., dan Fookes, P.G., 1994, *A revision of the graphical method for assessing the excavatability of rock: Quarterly Journal of Engineering Geology*, v. 27, p. 145–164, doi:10.1144/gsl.qjegh.1994.027.p2.05.
- Price, D.G., 2009, *Engineering Geology Principles and Practice*: Verlag Berlin Heidelberg This, Springer, v. 32, p. 179–180.
- Satyana, A.H., dan Purwaningsih, M.E.M., 2002, *Lekukan Struktur Jawa Tengah : Suatu Segmentasi Sesar Mendatar: Yogyakarta – Central Java Section “Geology of Yogyakarta and Central Java”*: Pocedding Indonesian Association Of Geologists (IAGI), p. 1–14.
- Sheorey, P.R., 1994, *A theory for In Situ stresses in isotropic and transverseley isotropic rock: International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts*, v. 31, p. 23–34, doi:10.1016/0148-9062(94)92312-4.
- Singh, B., dan Goel, R.K., 2011, *Engineering Rock Mass Classification Tunneling, Foundations, and Landslides*: United Kingdom, Oxford University, Elsevier Inc. All rights reserved., 357 p.
- Singh, B., dan Goel, R.K., 2006, *Tunnelling in weak rocks*: United Kingdom, Oxford University, Elsevier Ltd., v. 5, 489 p
- Sivakugan, N., Shukla, S.K., dan Das, B.M., 2013, *Rock Mechanics An Introduction*: Boca Raton London New York, Taylor & Francis Group.
- Streckeisen, A.L., 1976, *To each plutonic rock its proper name: Earth-Science Reviews*, v. 12, p. 1–33, doi:10.1016/0012-8252(76)90052-0.
- Sudjatmiko, 2003, *Peta Geologi Regional Lembar Cianjur, Jawa, Bandung*: Pusat Penelitian dan Pengembangan Geologi, Skala 1:100.000, 1 lembar. Sujadmiko, 2003, *Peta Geologi Regional Lembar Cianjur, Jawa*:
- Sukiyah, E., 2017, *Sistem Informasi Geografis Konsep dan aplikasinya dalam analisis geomorfologi kuantitatif*: Bandung, Jawa Barat, Unpad Press, v. 1, 291 p.
- Syahbana, D.K., Suantika, G., dan Solihin, A., 2008, *Peta Kawasan Rawan Bencana Gempabumi Jawa Bagian Barat*: Bandung, Pusat Vulkanologi dan Mitigasi Bencana Geologi, Skala 1:500.000, 1 lembar.
- Tatiya, R., 2005, *Civil Excavations and Tunnelling: A Practical Guide*: London, Thomas Telford Ltd, p. 346.
- Tim Pusat Studi Gempa Nasional, 2017, *Peta Sumber dan Bahaya Gempa Indonesia Tahun 2017*: Bandung, Jawa Barat, Pusat Penelitian dan Pengembangan Perumahan dan Permukiman Badan Penelitian dan Pengembangan Kementerian Pekerjaan Umum dan Perumahan Rakyat, 376 p.
- Tsiambaos, G., dan Saroglou, H., 2010, *Excavatability assessment of rock masses using the Geological Strength Index (GSI): Bulletin of Engineering Geology and the Environment*, v. 69, p. 13–27, doi:10.1007/s10064-009-0235-9.
- U.S. Department of the Interior Bureau of Reclamation, 2001, *Engineering Geology Field Manual 2nd edition Volume I*: Washington DC, U.S Government, v. I, 432 p.
- Utami, D.N., 2018, *Kajian Jenis Mineralogi Lempung Dan Implikasinya Dengan Gerakan Tanah*: Jurnal Alami : Jurnal Teknologi Reduksi Risiko Bencana, v. 2, p. 89, doi:10.29122/alami.v2i2.3095.

Vallejo, L.G. de, dan Ferrer, M., 2011, *Geological Engineering*: London, CRC Press, v. 58, 700 p., doi:10.1201/b11745.

Watkins, H., Bond, C.E., Healy, D., dan Butler, R.W.H., 2015, *Appraisal of fracture sampling methods and a new workflow to characterise heterogeneous fracture networks at outcrop*: *Journal of Structural Geology*, v. 72, p. 67–82, doi:10.1016/j.jsg.2015.02.001.

Wikel, K., 2011, *Geomechanics: Bridging The Gap From Geophysics To Engineering In Unconventional Reservoirs*: First Break, v. 29, p. 71–80

Yan, R., dan Shen, Y., 2015, *Correlation of Revised BQ System in China and the International Rock Mass Classification Systems*: *Journal of Civil Engineering Research*, v. 5, p. 33–38, doi:10.5923/j.jce.20150502.03.

Yun, H.S., dan Seo, Y.S., 2017, *Classification of geological and engineering properties in weak rock: a case study of a tunnel in a fault zone in southeastern Korea*: *Bulletin of Engineering Geology and the Environment*, v. 78, p. 445–458, doi:10.1007/s10064-017-1156-7.

van Bemmelen R. W, 1949, *The Geology of Indonesia Vol. I A General Geology of Indonesia and Adjacent Archiplegoes*, The Hague: Government Printing Office, v. 1, 275 p.

van Zuidam, R.A., 1983, *Guide to Geomorphologic Aerial Photographic Interpretation and Mapping*: TC, Enschede, Netherland.