

## DAFTAR PUSTAKA

- Arif, I. (2016). *Geoteknik Tambang*. Gramedia Pustaka Utama.
- ASTM (American Society for Testing and Material) D 854. *Test Method for Specific Gravity of Soils*. U.S.
- ASTM (American Society for Testing and Material) D 4318. *Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*. U.S.
- Balai Wilayah Sungai Bali Penida. (2018). *Review design drawing pembangunan Bendungan Sidan di Kabupaten Badung, Bangli, dan Gianyar (lanjutan)*. Balai Wilayah Sungai Bali Penida (Tidak diterbitkan).
- Balai Wilayah Sungai Bali Penida. (2020). *Laporan Direct Shear In Situ Test*. Balai Wilayah Sungai Bali Penida (Tidak diterbitkan).
- Barton, N., Lien, R., & Lunde. (1974). *Engineering Classification of Rock Masses for the Design of Tunnel Support*. Oslo: Norwegian Geotechnical Institute Publication 106.
- Bieniawski, Z. T. (1989). *Engineering rock mass classifications: a complete manual for engineers and geologists in mining, civil, and petroleum engineering*. John Wiley & Sons.
- Bowles, J. E. (1977). *Foundation analysis and design*. McGraw-Hill Kogakusha, Ltd., Tokyo, Japan.
- Brahmantlyo, B., dan Bandono. (2006). Klasifikasi bentuk muka bumi (landform) untuk pemetaan geomorfologi pada skala 1:25.000 dan aplikasinya untuk penataan ruang, *Jurnal Geoaplika*, 1-2, 71-78.
- Cai, M., Kaiser, P. K., Tasaka, Y., & Minami, M. (2007). Determination of residual strength parameters of jointed rock masses using the GSI system. *International Journal of Rock Mechanics and Mining Sciences*, 44(2), 247-265.
- Cosar, S. (2004). *Application of rock mass classification system for future support design of The Dam Tunnel Near Alanya*. Thesis.
- Darman, H. (2012). Short Note: Sedimentology of Bali Touristic Locations-Tanah Lot and Uluwatu. *Berita Sedimentologi*, 25(1), 38-43.
- Dearman, W.R. (1991). *Engineering geological mapping*. Butterworth-Heinemann, London; Boston.
- Deere, D. U. dan Deere, D. W. (1988). The Rock Quality Designation (RQD) index in practice. rock classification systems for engineering purposes. *Kirkaldie, L. (Ed.). American Society for Testing and Material: Philadelphia*. 91-101.

Dwinagara, B., Probowati, D., & Richy AU, R. A. (2020). Evaluasi ground support berdasarkan klasifikasi massa batuan rock mass index dan rock mass rating serta menggunakan finite element method numerical modeling pada tambang bawah tanah kencana pt nusa halmahera minerals. *Jurnal Teknologi Pertambangan UPN" Veteran" Yogyakarta*, 5(2), 52-61.

Edelbro, C. (2003). Rock mass strength—a review. *Technical report 2003:16*, Lulea University of Technology, ISSN 1402–1536.

Fakultas Teknik Universitas Gadjah Mada Yogyakarta. (2019). *Pedoman penulisan usulan penelitian untuk tesis*. Universitas Gadjah Mada.

Federal Highway Administration (FHWA). (2009). *Technical manual for design and construction of road tunnels-civil elements*, FHWA-NHI-10-034, Washington, D.C

Fisher, R. V. (1966). Rocks composed of volcanic fragments and their classification. *Earth-Science Reviews*, 1(4), 287-298.

Gonzalez de Vallejo, L. dan Ferrer, M. (2011). *Geological Engineering*. Netherlands: CRC Press Balkema.

Grimstad, E., dan Barton, N. (1993). Updating of the Q-system for NMT. Int. In *Symposium on Sprayed Concrete-Modern use of wet mix sprayed concrete for underground support*, Fagernes (Editors Kompen, Opshall and Berg, Norwegian Concrete Association, Oslo).

Hoek, E. (2007). *Practical rock engineering*, Rocscience. North Vancouver. Evert Hoek Consulting Engineer Inc.

Hoek E. (1994). Strength of rock and rock masses. *ISRM News Journal*. 2 (2),4-16.

Hoek, E., Carranza-Torres, C., & Corkum, B. (2002). Hoek-brown failure criterion, Toronto, Edition. *Proc. NARMS-TAC Conference*, 1, 267-273.

Hoek, E., Carter, T. G., & Diederichs, M. S. (2013). Quantification of the geological strength index chart. *the 47th US Rock Mechanics /Geomechanics Symposium*. San Francisco.

Hoek, E. dan Brown. (1980). *Underground excavation in rock*. The Institution of Mining and Metallurgy. London.

Hoek, E. dan Diederichs, M.S. (2005). Empirical estimation of rock mass modulus. *International Journal of Rock Mechanics and Mining Sciences*: 13.

Hoek, E. dan Marinos, P. (2000). GSI:a geologically friendly tool for rock mass strength estimation. *Proc. International Conference on Geotechnical & Geological Engineering*. GeoEng2000, Technomic Publ., 1422-1442, Melbourne.

Hoek E., Marinos P., & Benissi M. (1998). Applicability of the geological strength index (GSI) classification for very weak and sheared rock masses. The case of the

- ISRM. (1978). Suggested methods for the quantitative description of discontinuities in rock masses. *Int. J. Rock Mech, Sci. & Geomech*: 368.
- Japan Society of Civil Engineers (JSCE). (2007). *Standard specifications for tunneling-2006: Mountain Tunnels*. Japan.
- Karya Berdiri Bersama, PT. (2016). Peta Administrasi Provinsi Bali 2016. Diakses dari <https://geosis.id/blog/peta-provinsi-seluruh-indonesia-edisi-terbaru> pada tanggal 2 Mei 2022.
- Lobeck, A. K. (1939). *Geomorphology*, New York and London: Mc Graw-Hill Book Company Inc.
- Marinos, V., Marinos, P., & Hoek, E. (2005). The geological strength index: applications and limitations. *Bulletin of Engineering Geology and the Environment*, 64, 55-65.
- Mettana, PT. (2013). *Re desain dan pemantapan Waduk Sidan, selat kiri dan selat kanan Kabupaten Badung dan Gianyar*. Balai Wilayah Sungai Bali Penida (Tidak diterbitkan).
- Mettana, PT. (2015). *Pemantapan geologi dan model test Waduk Sidan di Kabupaten Badung*. Balai Wilayah Sungai Bali Penida (Tidak diterbitkan).
- Mettana, PT. (2017). *Investigasi geologi tambahan Bendungan Sidan di Kab. Badung, Kab. Bangli, Kab. Gianyar, Provinsi Bali*. Balai Wilayah Sungai Bali Penida (Tidak diterbitkan).
- Mettana, PT. (2019). *Laporan investigasi geologi teknik dan mekanika tanah desain Bendungan Sidan* (Tidak diterbitkan).
- Narendra, A. N. B., Yujana, C. A., Bagiarta, I. K. Y., & Aryastana, P. (2021). Analisis alternatif perencanaan dimensi terowongan pengelak Bendungan Sidan. *Paduraksa: Jurnal Teknik Sipil Universitas Warmadewa*, 10(2), 325-337.
- Norwegian Geotechnical Institute (NGI), 2015. *Handbook using the Q-system*. Oslo.
- Palmström, A. (1995). *RMi – A rock mass characterization system for rock engineering purposes*. PhD. thesis, Oslo University, Norway, 400 p.
- Palmström, A. (1996). The Rock Mass Index (RMi) applied in rock mechanics and rock engineering. *Journal of Rock Mechanics and Tunnelling Technology*, Vol. 2, Number 1.
- Palmström, A. (1996). Characterizing Rock Masses by The RMi for use in practical rock engineering. part 1: the development of the Rock Mass Index (RMi). *Tunnelling and Underground Space Technology*, Vol. 11, No. 2, pp. 175-186.

- Palmström, A. (1996). Characterizing rock masses by the R<sub>Mi</sub> for use in practical rock engineering. part 2: some practical applications of the Rock Mass Index (R<sub>Mi</sub>). *Tunnelling and Underground Space Technology*, Vol. 11, No. 3, pp. 287-303.
- Palmström, A. (2000). A.: recent developments in rock support estimates by the R<sub>Mi</sub>. *Journal of Rock Mechanics and Tunnelling Technology*, vol. 6, no. 1, May 2000, pp. 1 – 19.
- Palmström, A. (2009). Combining the RMR, Q, and R<sub>Mi</sub> classification systems. *Tunneling and Underground Space Technology*.
- Pratiwi, M. C. R. B. (2020). *Analisis kestabilan dan sistem penyangga terowongan saluran pengelak Bendungan Sidan, Bali*. Tesis. Teknik Geologi UGM, Yogyakarta.
- Purbo-hadiwidjoyo, M. M., Samodra. H., & Amin T. C. (1998). *Peta geologi lembar Bali*. Pusat Penelitian dan Pengembangan Geologi, skala 1:250.000, 1 lembar.
- Pusat Studi Gempa Nasional. (2017). *Peta sumber bahaya gempa nasional*. Pusat Litbang Perumahan dan Permukiman. Badan Penelitian dan Pengembangan, Kementerian Pekerjaan Umum dan Perumahan Rakyat, Jakarta.
- Pusat Vulkanologi dan Mitigasi Bencana Geologi. (2009). *Peta zona kerentanan gerakan tanah Provinsi Bali*. Badan Geologi, Kementerian ESDM, Bandung.
- Satria, J., Irawan, I. G. B., & Setiawan, N. I. (2021). Rock mass classification for design of excavation method and support system of tunnel 1 Sigli-Aceh toll road, Indonesia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 871, No. 1, p. 012055). IOP Publishing.
- Schmid, R. (1981). Descriptive nomenclature and classification of pyroclastic deposit and fragmens: recommendations of the iugs subcommission on the systematics of igneous rocks. *Institut für Kristallographie und Pétrographie, ETH-Zentrum, 8092 Zürich, Switzerland*.
- Sheorey, P.A. (1994). A theory for in-situ stress in isotropic and transversely isotropic rock. *Int. J. Rock Mech.Min. Sci. Geomech.* 31, 23-34.
- Sinarta, I. N., & Sumanjaya, A. A. (2018). Kondisi geologi dan infiltrasi terhadap ancaman gerakan tanah pada batuan vulkanik di kaldera gunung batur. *Konferensi Nasional Teknik Sipil 12*, 12, 42-52.
- Singh, B. dan Goel, R.K. (2011). *Engineering rock mass classification : tunneling, foundation and landslide*. USA: Butterworth-Heinemann.
- Sivakugan, N., Shukla, S. K., & Das, B. M. (2013). *Rock mechanics: an introduction*. Crc Press.
- SNI (Standar Nasional Indonesia) 03-2825-2008. *Cara Uji Kuat Tekan Batu Uniaksial*. Badan Standarisasi Nasional. Jakarta

SNI (Standar Nasional Indonesia) 1964-2008. *Cara Uji Berat Jenis Tanah*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 1965:2008. *Cara Uji Penentuan Kadar Air untuk Tanah dan Batuan di Laboratorium*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 1966:2008. *Cara Uji Penentuan Batas Plastis dan Indeks Plasitisitas Tanah*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 2813:2008. *Cara uji kuat geser langsung tanah terkonsolidasi dan terdrainase*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 3420:2016. *Metode Uji Kuat Geser Langsung Tidak Terkonsolidasi dan Tidak Drainase*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 3422: 2008. *Cara Uji Penentuan Batas Susut Tanah*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 3637:1994. *Metode Pengujian Berat Isi Tanah Berbutir Halus Dengan Cetakan Benda Uji*. Badan Standarisasi Nasional. Jakarta.

SNI (Standar Nasional Indonesia) 8460:2017. *Persyaratan Perancangan Geoteknik*. Badan Standarisasi Nasional. Jakarta.

Sobirin, S. (1990). *Penyelidikan geologi teknik untuk pembuatan terowongan*. Bandung: Institut Teknologi Bandung.

Suhendro, B. (2000). *Metode elemen hingga dan aplikasinya*. Yogyakarta: Jurusan Teknik Sipil, Fakultas Teknik, Universitas Gadjah Mada.

Supartoyo., Suantika. G., & Djaja. (2009). *Peta Kawasan Rawan Bencana Gempabumi Pulau Bali*. Kementerian Energi dan Sumber Daya Mineral, skala 1:250.000, 1 lembar.

Surat Edaran Dirjen Bina Marga, Nomor : 17/SE/Db/2021. (2021). *Penyelidikan geologi teknik dalam pembangunan terowongan jalan*. Jakarta.

Surat Edaran Menteri Pekerjaan Umum dan Perumahan Rakyat, Nomor : 23/SE/M/2015. (2015). *Pedoman metode perencanaan penggalian dan sistem perkuatan terowongan jalan pada media campuran tanah - batuan*. Jakarta.

Sutawidjaja, I. S., Chaniago R., & Kamal S. (1992). *Peta geologi Kaldera Batur, Bali, Indonesia*: Direktorat Vulkanologi, 1 lembar.

Thornbury, W. D. (1969). *Principles of geomorphology*. John Wiley and Sons Inc., New York, U.S.A.

Tsiambaos, G., dan Saroglau, H. (2009). Excavatability assessment of rock masses using the Geological Strength Index (GSI). *Bulletin of Engineering Geology and the Environment*.

Vallejo, L. I. G. D., dan Ferrer, M. (2011). *Geological engineering*. CRC Press.

van Bemmelen, R.W., (1949). *The geology of Indonesia vol. IA: General Geology of Indonesia and Adjacent Archiplegoes*. The Hague: Government Printing Office.

van Zuidam., R. W. (1985). *Guide to Geomorphologic-Aerial Photographic Interpretation and Mapping: Enschede*. The Netherlands.

Varnes, D. J. (1978). Slope movement types and processes. *Special report, 176*, 11-33.

Wyllie, D. C., & Mah, C. (2004). *Rock slope engineering*. CRC Press.

Yamamoto, E. M. S., Sayama, T., & Takara K. (2021). Impact of rapid tourism growth on water scarcity in Bali, Indonesia. *Indonesian Journal of Limnology*, 2 (1):1-16.