



DAFTAR PUSTAKA

- Anonim. 1986. *Standar Perencanaan. Kriteria Perencanaan Bagian Bangunan Utama KP – 02*. Direktorat Jenderal Pengairan Departemen Pekerjaan Umum. Badan Penerbit Departemen Pekerjaan Umum. Jakarta.
- Anonim. Badan Meteorologi Klimatologi Dan Geofisika, Balai Besar Meteorologi Klimatologi Dan Geofisika Wilayah III Denpasar. <http://balai3.denpasar.bmkg.go.id/tentang-tsunami>
- Anonim. 2016. *Drone Video of Japan's New Tsunami Sea Wall*. www.bbc.com/news/av/world-asia-35773530/drone-video-of-japan-s-new-tsunami-sea-wall.
- Anonim. 2016. *JRC Emergency Reporting - Activation #029 – 24 Dec 2018*.
- Arikawa, T., Yeom, G. S., Sato, M., Shimosako, K., Tomita, T., Hasegawa, I., 2012. *Failure Mechanism of Kamaishi Breakwaters Due to the Great East Japan Earthquake Tsunami*. Coastal Engineering.
- Arnason, H., Petroff, C., Yeh, H., 2009, *Tsunami Bore Impingement onto a Vertical Column*, Journal of Disaster Research, Vol.4, No.6.
- Asakura, R., Iwase, K., Ikeya, T., Takao, M., Kaneto, T., FUJI, N., Ohmori, M., 2002. *The Tsunami Wave Force Acting on Land Structures*, Coastal Engineering 2002.
- Atwater, B. F., Cisternas, V. M., Bourgeois, J., Dudley, C. W., Hendley, J. W., Stauffer, P. H., 1999. *Surviving a Tsunami Lessons from Chile, Hawaii, and Japan*. U.S. Geological Survey, Circular 1187, Version 1.1. Reprinted 2001; revised and reprinted 2005.
- Bangguna, D.S.V.L., Triatmadja, R., Yuwono, N., 2016. *Simulation of Tsunami Attack on Seawall Caisson*. Proceeding of 20th Congress of the IAHR-APD 2016, Colombo, Sri Lanka. 28-31 Agustus 2016. *to be published*.
- Bollaert, E. and Schleiss, A., 2003. *Scour of Rock Due To the Impact of High-Velocity Jets. Part I: A State-of-the-Art Review*, Journal of Hydraulic Research, IAHR, Vol. 41, No.5, pp.465-480.
- Breusers, H. N. C., 1966. *Conformity and Time Scale in Two-Dimensional Local Scour*. Proc., Symp. on model and prototype conformity, Hydr. Res. Lab., Poona, India, 1-8.



- Breusers, H. N. C., Nicolle, G., Shen, H. W., 1977. *Local Scour Around Cylindrical Pier*. Journal of Hydraulic Research, IAHR, 15(3), 211-252.
- Chanson, H., 2005. *Applications of the Saint-Venant Equations and Method of Characteristics to the Dam Break Wave Problem*, Report.
- Chanson, H., 2006. *Tsunami Surges on Dry Coastal Plains: Application of Dam Break Wave Equations*. Coastal Engineering Journal, Vol. 48, No. 4 (2006) 355–370.
- Chow, V. T., 1959, *Open Channel Hydraulics*, Mc. Graw-Hill Civil Engineering Series, New York, USA.
- Felder, S, and Chanson, H., 2012. *Free-surface Profiles, Velocity and Pressure Distributions on a Broad-Crested Weir: a Physical Study*. Journal of Irrigation and Drainage Engineering, ASCE, Vol. 138, No. 12, pp. 1068–1074 (DOI: 10.1061/(ASCE)IR.1943-4774.0000515) (ISSN 0733-9437).
- FEMA P-55, 2011. *Coastal Construction Manual, Volume I, Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas (Fourth Edition)*.
- FEMA P-55, 2011. *Coastal Construction Manual, Volume II, Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas (Fourth Edition)*.
- FEMA P-646, 2012. *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*, Second Edition.
- French. R. H., 1987. *Open-Channel Hydraulics*. 2nd Printing 1987. McGRAW-Hill Book Company.
- Fritz, H. M., Phillips, D. A., Okayasu, A., Shimozono, T., Liu, H. J., Mohammed F., Skanavis, V., Synolakis, C. E., Takahashi, T., 2012. *The 2011 Japan Tsunami Current Velocity Measurements From Survivor Videos at Kesennuma Bay Using LiDAR*. Geophys. Res. Lett. 39, L00G23. (doi:10.1029/2011GL050686)
- Furusho, K. 2017. *The Choice Facing Kesennuma: To Live With the Sea, or Against It?*. Japan Institute for National Fundamentals. <https://www.japan-forward.com/the-choice-facing-kesennuma-to-live-with-the-sea-or-against-it/>



Garde, R. J. and Raju, K. G. R., 1985, *Mechanics of Sediment Transportation and Alluvial Stream Problems*, Second Edition, Wiley Eastern Limited, Roorkee, India

Gonzalez, C. A. and Chanson, H., 2007. *Experimental Measurements of Velocity and Pressure Distributions on A Large Broad-Crested Weir*. Flow Measurement and Instrumentation.

Goodarzi, E., Farhoudi, J., Shokri, N., 2012. *Flow Characteristics of Rectangular Broad-Crested Weirs with Sloped Upstream Face*. J. Hydrol. Hydromech, 60, 2012, 2, 87–100 DOI: 10.2478/v10098-012-0008-1

Goseberg, N., Wurpts, A., Schlurmann, T., 2013. *Laboratory-Scale Generation of Tsunami and Long Waves*, Coastal Engineering 79 (2013).

Hager, W. H. and Schwalt, M., 1994. *Broad-Crested Weir*. Journal of Irrigation and Drainage Engineering 120(1): 13-26.

Hoffmans. G.J.C.M. and Verheij. H.J., 1997. *Scour Manual*, A.A. Balkema, Rotterdam.

Hoffmans. G.J.C.M., 1998. *Jet Scour in Equilibrium Phase*. Journal of Hydraulic Engineering/April. 124(4): 430-437.

Imamura, F. and Anawat, S., 2012. *Damage Due to The 2011 Tohoku Earthquake Tsunami and Its Lessons for Future Mitigation*. Proceedings of the International Symposium on Engineering Lessons Learned from the 2011 Great East Japan Earthquake, March 1-4, 2012, Tokyo, Japan.

Kato, F., Inagaki, S., Fukushima, M., 2007. *Wave Force on Coastal Dike Due to Tsunami*, Proceedings of the 30th International Conference on Coastal Engineering, ASCE, 5150-5161. Shuto, N. 2009. Damages to coastal structures by tsunami-induced currents in the past, Journal of Disaster Research, 4(6), 462-468.

Kato, Y., Suwa, K., Watanabe, Hatogai, S., 2012. *Mechanisms of coastal dike failure induced by the Great East Japan Earthquake Tsunami*, Proceedings of the 33rd International Conference on Coastal Engineering, structures.40, 2012.

Kato, F., Suwa, Y., Watanabe, K., Hatogai, S., 2013. *Damages to Shore Protection Facilities Induced by the Great East Japan Earthquake Tsunami*. Journal of Disaster Research Vol.8 No.4, 2013.



Kementerian Pekerjaan Umum Republik Indonesia, 2010. *Surat Edaran Menteri Pekerjaan Umum No. 07/SE/M/2010 tentang Pemberlakukan Pedoman Pelaksanaan Konstruksi Bangunan Pengaman Pantai*, Jakarta.

Kenji, H., 2002. *Experimental Study on the Effect in Reducing Tsunami by the Coastal Permeable Structures*, Proceedings of The Twelfth (2002) International Offshore and Polar Engineering Conference Kitakyushu, Japan, May 26–31, 2002.

Kieffer, S., Colberg, J., Flowers, J., 2011. *Flow Regime Transformations in the March 11, 2011 Tsunami, Northern Honshu, Japan*. 2 July 2011 Union Symposium U-02 extension.

Kim, D. G. and Park, J. H., 2005. *Analysis of Flow Structure over Ogee-Spillway in Consideration of Scale and Roughness Effects by Using CFD Model*. KSCE Journal of Civil Engineering Vol. 9, No. 2 / March 2005 pp. 161-169.

Kim, K., H. 2018. *After the tsunami: Japan's sea walls – in pictures*. Reuters. <https://www.theguardian.com/world/gallery/2018/mar/09/after-the-tsunami-japan-sea-walls-in-pictures>

Koresawa, A., and Kawawaki, Y., 2011. *Great East Japan Earthquake (GLIDE: EQ-2011-000028-JPN) - Preliminary Observations*. ADRC and IRP. Japan.

Kuswandi, Triatmadja, R., Istiarto. 2016. *Velocity Around a Cylinder Pile During Scouring Process Due to Tsunami*. Proceedings of the 20th IAHR-APD Congress 2016, Colombo, Srilanka.

Malik, A. 2018. *Seven Years After Tsunami, Japanese Live Uneasily with Seawalls* <http://www.aaj.tv/2018/03/seven-years-after-tsunami-japanese-live-uneasily-with-seawalls/>

Matsushita, H., 2012. *Breakwater Reinforcement Method Against Large Tsunami*, Nikken Kogaku Co., Ltd., Japan.

Yuwono, N., 2004. *Pedoman Teknis Perencanaan Tanggul dan Dinding vertikal (Sea Dikes-Sea Wall)*, Buku VI, Laboratorium Hidraulika Dan Hidrologi, Pusat Studi Ilmu Teknik, Universitas Gadjah Mada Jogjakarta.

Raichlen, F. and Keck, W. M., 1970. *Tsunamis Some Laboratory and Field Observations*, Coastal Engineering, Chapter 127 (1970) 2103-2122.



- Raudkivi, A. J., & R. Ettema. (1983). *Clear Water Scour At Cylinder Pier*. Journal of Hydraulic Engineering, vol. 109, no. 3, pp. 338-350. doi:10.1061/(ASCE)0733-9429(1983)109:3(338).
- Rijn, L. C. van., 1984. *Sediment Transport, Part I: Bed Load Transport*. Journal of Hydraulic Engineering, Vol. 110; No. 10, October, 1984. ©ASCE, ISSN 0733-9429/84/0010-1431/\$01.00. Paper No. 19220.
- Rijn, L. C. van.. 1884. *Sediment Transport, Part II: Suspended Load Transport*. Journal of Hydraulic Engineering, Vol. 110, No. 11, November, 1984. ©ASCE, ISSN 0733-9429/84/0011-1613/\$01.00. Paper No. 19277.
- Rossetto, T., Allsop, W., Charvet, I., Robinson, D.I., 2011. *Physical Modelling of Tsunami Using a New Pneumatic Wave Generator*. Coastal Engineering 58 (6), 517–527.
- Ruol, P., Martin, P., Andersen, T., Martinelli, L., 2014. *Experimental Investigation on Caisson Breakwater Sliding*, Coastal Engineering 2014.
- Sarwono, J., 2006. *Analisis Data Penelitian Menggunakan SPSS*. Andi Offset. Yogyakarta
- Satuan Tugas Penanggulangan Bencana Aceh., 2005. *Laporan Kajian Awal Dan Survey Lapangan Pasca Gempabumi Dan Tsunami Aceh 26 Desember 2004*. Institut Teknologi Bandung. Februari 2005.
- Song, C.C.S. and Zhou, F., 1999. *Simulation of Free Surface Flow Over Spillway*. J. of Hydraulic Eng., ASCE, Vol. 125, No. 9, pp. 959- 967.
- Sulianto, A. A. and Murakami, K., 2015. *Study on Local Scouring of Gravel Mound Due to Tsunami Overflow*. 8th International Conference on Asian and Pacific Coasts (APAC 2015). Procedia Engineering 116 (2015) 195 – 202.
- Takashi, T., Kuriyama, Y., Tomita, T., Kawai, Y., Arikawa, T., Tatsumi, D., 2011. *Urgent Survey for 2011 Great East Japan Earthquake and Tsunami Disaster in Ports and Coasts - Part I (Tsunami)*.
- Takayama, T., and Aota, T., 2011: *Charateristics of Huge Tsunami in Eastern Japan Great Earthquake Disaster and Future Measures Againsts it*. Proceeding of AIWEST-DR 2011 and SCSTW-4. Banda Aceh. Indonesia.
- Tomita, T., Yoem, G. S., 2012. *Tsunami Damage in Ports by the 2011 off Pacific Coast of Tohoku Earthquake*, Proceedings of the International Symposium on Engineering Lessons Learned from the 2011 Great East Japan Earthquake, Tokyo, Japan.



- Tonkin, S., Francis, M., Bricker, J. D., 2013. *Limits on Coastal Scour Depths due to Tsunami*. International Efforts in Lifeline Earthquake Engineering: pp. 671-678. doi: 10.1061/9780784413234.086.
- Torabi, M. A. and Shafieefar, M., 2015. *An Experimental Investigation on the Stability of Foundation of Composite Vertical Breakwaters*, J. Marine Sci. Appl. 14: 175-182 DOI: 10.1007/s11804-015-1309-7.
- Triatmadja, R. and Benazir., 2014. *Simulation of Tsunami Force on Rows of Buildings in Aceh Region After Tsunami Disaster in 2004*, Science of Tsunami Hazards, Journal of Tsunami Society International, vol. 33 Number 3.
- Triatmadja, R. and Nurhasanah, A., 2011. *Tsunami Force on Elevated Buildings*. Proceedings Seminar Internasional, International Seminar on Water Related Risk Management, July 2011. pp. 223-229.
- Triatmodjo, B. 1996. *Hidraulika II*. Beta Offset, Yogyakarta.
- Tsujimoto, G., Mineura, R., Yamada, F., Kakinoki, T., Uno, K., 2014. *Scouring Mechanism Behind Seawall from Tsunami Overflow and Optimum Conditions to Reduce Tsunami Energy With an Artificial Trench*. Coastal Engineering.
- Tsujio, D., Yasuda, T., Mori, N., Mase, H., 2013. *Experiment on Breakwater Stability and Effectiveness of Reinforcement Against Tsunami Attack*. Coastal Dynamics.
- Umumararungu, M. G., 2016. *Physical Modelling Investigation of Rock Scour Extent Due To a Plunging Jet for Typical High Head Dams*. Thesis. Stellenbosch University.
- Yeh, H., Abdulhamid, G., Ingunn, M., 1989. *Experimental Study of Bore Runup*. J. Fluid Mech. (1989), vol 206, pp. 563-578.
- Yeh, H., 1991. *Tsunami Bore Runup*, Natural Hazards 4: 209-220, 1991.
- Yeh, H., Barbosa, A. R., Harrison, K., Cawley, J., 2004. *Tsunami Loadings on Structures Review and Analysis*, Coastal Engineering 2014.
- Yeh, H., 2007. *Tsunami Load Determination for Onshore Structures*. Symposium Preview. Hinsdale Wave Research Laboratory. Corvallis. Oregon.



Wahyudi, S., 2012. *Belajar Dari Bencana: Gagalnya Taro City's Great Wall.*
<https://resultanengineering.wordpress.com/2014/02/04/belajar-dari-bencana-gagalnya-taro-citys-great-wall/>

Wang, D., Shaowu, L. S., Arikawa, T., 2016. *ISPH Simulation of Scour Behind Seawall Due to Continuous Tsunami Overflow.* Coastal Engineering Journal, Vol. 58, No. 3. DOI: 10.1142/S0578563416500145

Warniyati. Triatmadja, R., Yuwono, N., Bangguna, D.S.V.L. 2019. *Design of a Facility for Tsunami Run up Generation to Study Tsunami and Seawall Interaction.* Vol. 5 No. 1 (January 2019).
<https://doi.org/10.22146/jcef.36857>.