

## REFERENCES

- Aarninkhof, S. G., Caljouw, M., & Stive, M. J. (2001). Video-based, quantitative assessment of intertidal beach variability. In *Coastal Engineering 2000* (pp. 3291-3304).
- Abeykoon, L. C. K., Thilakarathne, E. P. D. N., Abeygunawardana, A. P., Warnasuriya, T. W. S., & Egodaunya, K. P. U. T. (2021). *Are coastal protective hard structures still applicable with respect to shoreline changes in Sri Lanka?* (No. 1240). ADBI Working Paper Series.
- Agor, R. (2015). *A textbook of surveying and levelling* (Twelfth ed). Khanna Publishers.
- Ahmad, H. (2019). Bangladesh coastal zone management status and future trends. *Journal of Coastal Zone Management*, 22(1), 1-7.
- Ai, L., Liu, S., Cong, S., Zhang, H., Cao, P., Wu, K., ... & Shi, X. (2024). Spatial variability of surface sediments in the Malacca strait and its implications for sedimentary environments. *Journal of Asian Earth Sciences*, 259, 105922.
- Alsina, J. M., & Baldock, T. E. (2007). Improved representation of breaking wave energy dissipation in parametric wave transformation models. *Coastal Engineering*, 54(10), 765-769.
- Amalan, K., Ratnayake, A. S., Ratnayake, N. P., Weththasinghe, S. M., Dushyantha, N., Lakmali, N., & Premasiri, R. (2018). Influence of nearshore sediment dynamics on the distribution of heavy mineral placer deposits in Sri Lanka. *Environmental earth sciences*, 77, 1-13.

Amarasinghe, A. G. (2020). Intensity of coastal erosion in Sri Lanka: The case of south western coastal sector. *American Journal of Multidisciplinary Research & Development (AJMRD)*, 2(11), 01-07.

Amaro, V. E., Gomes, L. R. S., de Lima, F. G. F., Scudelari, A. C., Neves, C. F., Busman, D. V., & Santos, A. L. S. (2015). Multitemporal analysis of coastal erosion based on multisource satellite images, Ponta Negra Beach, Natal City, Northeastern Brazil. *Marine Geodesy*, 38(1), 1-25.

Amoudry, L. O., & Souza, A. J. (2011). Deterministic coastal morphological and sediment transport modeling: A review and discussion. *Reviews of Geophysics*, 49(2).

Ampitiyawatta, A. D., & Guo, S. (2009). Precipitation trends in the Kalu Ganga basin in Sri Lanka. *Journal of Agricultural Sciences*, 04, 10–18.

Anfuso, G., Loureiro, C., Taaouati, M., Smyth, T., & Jackson, D. (2020). Spatial variability of beach impact from post-tropical cyclone Katia (2011) on Northern Ireland's North coast. *Water*, 12(5), 1380.

Appeaning Addo, K., Jayson-Quashigah, P. N., Codjoe, S. N. A., & Martey, F. (2018). Drone as a tool for coastal flood monitoring in the Volta Delta, Ghana. *Geoenvironmental Disasters*, 5(1), 1-13.

Ashphaq, M., Srivastava, P. K., & Mitra, D. (2021). Review of near-shore satellite derived bathymetry: Classification and account of five decades of coastal bathymetry research. *Journal of Ocean Engineering and Science*, 6(4), 340-359.

Astiti, S. P. C., Osawa, T., & Nuarsa, I. W. (2019). Identification of shoreline changes using sentinel 2 imagery data in Canggu Coastal Area. *Ecotrophic*, 13(2), 191-204.

- Bamunawala, R. M. J., Hettiarachchi, S. S. L., Samarawickrama, S. P., Wikramanayake, P. N., & Ranasinghe, R. (2016). Impacts of Climate Change on Extreme Wave Climate Along the Western Coast of Sri Lanka. In *Coastal Management: Changing coast, changing climate, changing minds* (pp. 119-127). ICE Publishing.
- Baptista, P., Cunha, T., Bernardes, C., Gama, C., Ferreira, Ó., & Dias, A. (2011). A precise and efficient methodology to analyse the shoreline displacement rate. *Journal of Coastal Research*, 27(2), 223-232.
- Barman, N., Borgohain, A., Kundu, S. S., & Kumar, N. K. (2021). Seasonal variation of mountain-valley wind circulation and surface layer parameters over the mountainous terrain of the northeastern region of India. *Theoretical and Applied Climatology*, 143, 1501-1512.
- Barone, D. A., McKenna, K. K., & Farrell, S. C. (2014). Hurricane sandy: beach-dune performance at New Jersey beach profile network sites. *Shore & Beach*, 82(4), 13-23.
- Battjes, J. A. (1974). Surf similarity. In *Coastal Engineering 1974* (pp. 466-480).
- Bellomo, D., Pajak, M. J., & Sparks, J. (1999). Coastal flood hazards and the national flood insurance program. *Journal of Coastal Research*, 21-26.
- Benveniste, J., Cazenave, A., Vignudelli, S., Fenoglio-Marc, L., Shah, R., Almar, R., & Wöppelmann, G. (2019). Requirements for a coastal hazard observing system. *Frontiers in Marine Science*, 6, 348.
- Blott, S. J., & Pye, K. (2001). GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. *Earth surface processes and Landforms*, 26(11), 1237-1248.

Boak, E. H., & Turner, I. L. (2005). Shoreline definition and detection: a review. *Journal of coastal research*, 21(4), 688-703.

Booij, N. R. R. C., Ris, R. C., & Holthuijsen, L. H. (1999). A third-generation wave model for coastal regions: 1. Model description and validation. *Journal of geophysical research: Oceans*, 104(C4), 7649-7666.

Boon, M., Drijfhout, A. and Tesfamichael, S. (2017). Comparison of a fixed-wing and multi-rotor uav for environmental mapping applications: a case study. *ISPRS - International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences*. pp. 47–54.

Bouchahma, M., & Yan, W. (2012). Automatic measurement of shoreline changes on Djerba Island of Tunisia. *Computer and Information Science*, 5(5), 17.

Boudet, L., Sabatier, F., & Radakovitch, O. (2017). Modelling of sediment transport pattern in the mouth of the Rhone delta: Role of storm and flood events. *Estuarine, Coastal and Shelf Science*, 198, 568-582.

Bowen, P. (2002). Particle size distribution measurements from millimeters to nanometers and from rods to platelets. *Journal of Dispersion Science and Technology*, 23(5), 631-662.

Brocchini, M., & Baldock, T. E. (2008). Recent advances in modeling swash zone dynamics: Influence of surf-swash interaction on nearshore hydrodynamics and morphodynamics. *Reviews of Geophysics*, 46(3).

Brown, C. J., Beaudoin, J., Brissette, M., & Gazzola, V. (2019). Multispectral multibeam echo sounder backscatter as a tool for improved seafloor characterization. *Geosciences*, 9(3), 126.

Brown, J., Colling, A., Park, D., Phillips, J., Rothery, D., & Wright, J. (1998). The Ocean Basins: Their Structure and Evolution, 171 pp.

Bruneau, N., & Toumi, R. (2016). A fully coupled atmosphere-ocean-wave model of the Caspian Sea. *Ocean Modelling*, 107, 97-111.

Buck, B. H., Bjelland, H. V., Bockus, A., Chambers, M., Costa-Pierce, B. A., Dewhurst, T., ... & Heasman, K. G. (2024). Resolving the term “offshore aquaculture” by decoupling “exposed” and “distance from the coast”. *Frontiers in Aquaculture*, 3, 1428056.

Bull, C. F., Davis, A. M., & Jones, R. (1998). The influence of fish-tail groynes (or breakwaters) on the characteristics of the adjacent beach at Llandudno, North Wales. *Journal of coastal research*, 93-105.

Bunte, K. (2001). *Sampling surface and subsurface particle-size distributions in wadable gravel-and cobble-bed streams for analyses in sediment transport, hydraulics, and streambed monitoring*. US Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Cabezas-Rabadán, C., Pardo-Pascual, J. E., Palomar-Vázquez, J., & Fernández-Sarría, A. (2019). Characterizing beach changes using high-frequency Sentinel-2 derived shorelines on the Valencian coast (Spanish Mediterranean). *Science of the Total Environment*, 691, 216-231.

Carrier III, W. D. (2003). Particle size distribution of lunar soil. *Journal of Geotechnical and Geoenvironmental Engineering*, 129(10), 956-959.

Casagli, N., Ermini, L., & Rosati, G. (2003). Determining grain size distribution of the material composing landslide dams in the Northern Apennines: sampling and processing methods. *Engineering geology*, 69(1-2), 83-97.

Castelle, B., Marieu, V., Bujan, S., Splinter, K. D., Robinet, A., Sénéchal, N., & Ferreira, S. (2015). Impact of the winter 2013–2014 series of severe Western Europe storms on a double-barred sandy coast: Beach and dune erosion and megacusps embayments. *Geomorphology*, 238, 135-148.

Chand, P., & Acharya, P. (2010). Shoreline change and sea level rise along coast of Bhitarkanika wildlife sanctuary, Orissa: An analytical approach of remote sensing and statistical techniques. *International Journal of Geomatics and Geosciences*, 1(3), 436-455.

Chander, G., Markham, B. L., & Helder, D. L. (2009). Summary of current radiometric calibration coefficients for Landsat MSS, TM, ETM+, and EO-1 ALI sensors. *Remote sensing of environment*, 113(5), 893-903.

Chandrasekhar, K.P. (2020). *Another take on Mount Lavinia artificial beach project*. <https://www.newsradio.lk/justin/another-take-on-mount-lavinia-artificial-beach-project/>.

Chandramohan, P., Nayak, B. U., & Raju, V. S. (1990). Longshore-transport model for south Indian and Sri Lankan coasts. *Journal of waterway, port, coastal, and ocean engineering*, 116(4), 408-424.

Chang, G., Jones, C., & Roberts, J. (2014). SANDIA REPORT Investigation of Wave Energy Converter Effects on Near-shore Wave Fields: Model Generation, Validation and Evaluation-Kaneohe Bay, HI. <http://www.ntis.gov/help/ordermethods.asp?loc=7-4-0#online>

Chau, K. W. (2010). *Modelling for coastal hydraulics and engineering*. CRC Press, 231 pp.

- Chen, S. S., & Curcic, M. (2016). Ocean surface waves in Hurricane Ike (2008) and Superstorm Sandy (2012): Coupled model predictions and observations. *Ocean Modelling*, 103, 161-176.
- Cheng, J., Wang, P., & Guo, Q. (2016). Measuring beach profiles along a low-wave energy microtidal coast, west-central Florida, USA. *Geosciences*, 6(4), 44.
- Cipolletti, M. P., Delrieux, C. A., Perillo, G. M., & Piccolo, M. C. (2012). Superresolution border segmentation and measurement in remote sensing images. *Computers & Geosciences*, 40, 87-96.
- Civco, D. L. (1993). Artificial neural networks for land-cover classification and mapping. *International journal of geographical information science*, 7(2), 173-186.
- Coco, G., Senechal, N., Rejas, A., Bryan, K. R., Capo, S., Parisot, J. P., & MacMahan, J. H. (2014). Beach response to a sequence of extreme storms. *Geomorphology*, 204, 493-501.
- Colbo, K., Ross, T., Brown, C., & Weber, T. (2014). A review of oceanographic applications of water column data from multibeam echosounders. *Estuarine, coastal and shelf science*, 145, 41-56.
- Cooper, N. J., Leggett, D. J., & Lowe, J. P. (2000). Beach-Profile Measurement, Theory and Analysis: Practical Guidance and Applied Case Studies. *Water and Environment Journal*, 14(2), 79-88.
- Costa, B. M., Battista, T. A., & Pittman, S. J. (2009). Comparative evaluation of airborne LiDAR and ship-based multibeam SoNAR bathymetry and intensity for mapping coral reef ecosystems. *Remote Sensing of Environment*, 113(5), 1082-1100.
- Cowell, P. J. (1982). *Breaker stages and surf structure on beaches*. Coastal Stud. Unit, Univ. Sydney, Tech. Rep. 82/7.

DailyFT. (2020). *Absence of EIA and wastage of public funds in Mt. Lavinia beach nourishment project*. <http://www.ft.lk/Opinion-and-Issues/Absence-of-EIA-and-wastage-of-public-funds-in-Mt-Lavinia-beach-nourishment-project/14-701165>.

Dailymirror, (2021). *Artificial beach between Kalutara and Mount Lavinia is a success: Coast Conservation Department*. [http://www.dailymirror.lk/breaking\\_news/Artificial-beach-between-Kalutara-and-Mount-Lavinia-is-a-success-Coast-Conservation-Dept/108-208486](http://www.dailymirror.lk/breaking_news/Artificial-beach-between-Kalutara-and-Mount-Lavinia-is-a-success-Coast-Conservation-Dept/108-208486).

Dapkunas, S. J., Jillavenkatesa, A., & Lum, L. H. (2001). Particle size characterization. *NIST Recommended Practice Guide. SP, 960-1*.

Das Adhikari, M., Maiti, S., Patra, S., Jana, A., Maiti, S. K., & Sengupta, A. (2016). GIS based beach sand budget analysis through seasonal beach profiling using cartographic techniques. *Modeling Earth Systems and Environment*, 2, 1-13.

Dean, R. G. (1973). Heuristic models of sand transport in the surf zone. In *First Australian Conference on Coastal Engineering, 1973: Engineering Dynamics of the Coastal Zone* (pp. 215-221). Sydney, NSW: Institution of Engineers, Australia.

Dean, R. G. (1977). Equilibrium beach profiles: US Atlantic and Gulf Coasts. Dept. Civil Eng., Ocean Eng. Rep., Univ. Delaware, Newark, Del. 12p.

Dean, R. G., & Dalrymple, R. A. (2004). *Coastal processes with engineering applications*. Cambridge University Press.

Deepika, B., Avinash, K., & Jayappa, K. S. (2014). Shoreline change rate estimation and its forecast: remote sensing, geographical information system and statistics-based approach. *International Journal of Environmental Science and Technology*, 11, 395-416.

Di Luccio, D., Benassai, G., Di Paola, G., Mucerino, L., Buono, A., Rosskopf, C. M., & Montella, R. (2019). Shoreline rotation analysis of embayed beaches by means of in situ and remote surveys. *Sustainability*, 11(3), 725.

Dietze, E., Maussion, F., Ahlborn, M., Diekmann, B., Hartmann, K., Henkel, K., & Haberzettl, T. (2014). Sediment transport processes across the Tibetan Plateau inferred from robust grain-size end members in lake sediments. *Climate of the Past*, 10(1), 91-106.

Ding, W., & Huang, C. (2017). Effects of soil surface roughness on interrill erosion processes and sediment particle size distribution. *Geomorphology*, 295, 801-810.

Dissanayake, P., Yates, M. L., Suanez, S., Floc'h, F., & Krämer, K. (2021). Climate Change impacts on coastal wave dynamics at Vougot Beach, France. *Journal of Marine Science and Engineering*, 9(9), 1009.

Dolan, R., Fenster, M. S., & Holme, S. J. (1991). Temporal analysis of shoreline recession and accretion. *Journal of coastal research*, 723-744.

Dolan, R., Hayden, B.P., May, P., & May, S.K. (1980). The reliability of shoreline changes measurements from aerial photographs. *Shore and Beach*, 48(4), 22-29.

Donelan, M. A., Curcic, M., Chen, I. S., & Magnusson, A. K. (2012). Modeling waves and wind stress. *Journal of Geophysical Research: Oceans*, 117(C11).

Dora, G. U., Kumar, V. S., Johnson, G., Philip, C. S., & Vinayaraj, P. (2012). Short-term observation of beach dynamics using cross-shore profiles and foreshore sediment. *Ocean & coastal management*, 67, 101-112.

Dora, G. U., Kumar, V. S., Johnson, G., Philip, C. S., & Vinayaraj, P. (2012). Short-term observation of beach dynamics using cross-shore profiles and foreshore sediment. *Ocean & coastal management*, 67, 101-112.

Dora, G. U., Kumar, V. S., Philip, C. S., Johnson, G., Vinayaraj, P., & Gowthaman, R. (2011). Textural characteristics of foreshore sediments along Karnataka shoreline, west coast of India. *International Journal of Sediment Research*, 26(3), 364-377.

Douglas, B. C., & Crowell, M. (2000). Long-term shoreline position prediction and error propagation. *Journal of Coastal Research*, 145-152.

Duong, T. M. (2021). Climate change induced coastline change adjacent to small tidal inlets. *Frontiers in Marine Science*, 1860.

Duong, T. M., Ranasinghe, R., Luijendijk, A., Walstra, D., & Roelvink, D. (2017). Assessing climate change impacts on the stability of small tidal inlets: Part 1-Data poor environments. *Marine geology*, 390, 331-346.

Duong, T. M., Ranasinghe, R., Thatcher, M., Mahanama, S., Wang, Z. B., Dissanayake, P. K., Hermer, M., Luijendijk, A., Bamunawala, J., Roelvink, J., & Walstra, D. (2018). Assessing climate change impacts on the stability of small tidal inlets: Part 2-Data rich environments. *Marine geology*, 395, 65-81.

Edwards, A. C. (2001). Grain size and sorting in modern beach sands. *Journal of Coastal Research*, 38-52.

Eliot, I., & Clarke, D. (1989). Temporal and spatial bias in the estimation of shoreline rate-of-change statistics from beach survey information. *Coastal Management*, 17(2), 129-156.

Elliott, E. T., & Cambardella, C. A. (1991). Physical separation of soil organic matter. *Agriculture, Ecosystems & Environment*, 34(1-4), 407-419.

Ewing, L. C. (2015). Resilience from coastal protection. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 373(2053), 20140383.

Fairhead, J. D., Green, C. M., & Odegard, M. E. (2001). Satellite-derived gravity having an impact on marine exploration. *The Leading Edge*, 20(8), 873-876.

Fenster, M. S., Dolan, R., & Morton, R. A. (2001). Coastal storms and shoreline change: signal or noise?. *Journal of Coastal Research*, 714-720.

Fenton, J. D. (1999). Numerical methods for nonlinear waves. In *Advances in coastal and ocean engineering* (pp. 241-324).

Fiedler, J. W., Smit, P. B., Brodie, K. L., McNinch, J., & Guza, R. T. (2019). The offshore boundary condition in surf zone modeling. *Coastal Engineering*, 143, 12-20.

Fischione, P., Pasquali, D., Celli, D., Di Nucci, C., & Di Risio, M. (2022). Beach drainage system: a comprehensive review of a controversial soft-engineering method. *Journal of Marine Science and Engineering*, 10(2), 145.

Fitri, A., Hashim, R., Abolfathi, S., & Abdul Maulud, K. N. (2019). Dynamics of sediment transport and erosion-deposition patterns in the locality of a detached low-crested breakwater on a cohesive coast. *Water*, 11(8), 1721.

FitzGerald, D. M. (1988). Shoreline erosional-depositional processes associated with tidal inlets. In *Hydrodynamics and sediment dynamics of tidal inlets* (pp. 186-225). Springer New York.

Folk, R. L., & Ward, W. C. (1957). Brazos River bar [Texas]; a study in the significance of grain size parameters. *Journal of sedimentary research*, 27(1), 3-26.

Friedman, G. M. (1967). Dynamic processes and statistical parameters compared for size frequency distribution of beach and river sands. *Journal of Sedimentary Research*, 37(2), 327-354.

Friedman, G. M. (1961). Distinction between dune, beach, and river sands from their textural characteristics. *Journal of Sedimentary Research*, 31(4), 514-529.

Galvin Jr, C. J. (1968). Breaker type classification on three laboratory beaches. *Journal of geophysical research*, 73(12), 3651-3659.

Gee, G. W., & Or, D. (2002). 2.4 Particle-size analysis. *Methods of soil analysis: Part 4 physical methods*, 5, 255-293.

Gens, R. (2010). Remote sensing of coastlines: detection, extraction and monitoring. *International Journal of Remote Sensing*, 31(7), 1819-1836.

Giordano, F., Mattei, G., Parente, C., Peluso, F., & Santamaria, R. (2015). Integrating sensors into a marine drone for bathymetric 3D surveys in shallow waters. *Sensors*, 16(1), 41.

Gomes, E. R., Mulligan, R. P., Brodie, K. L., & McNinch, J. E. (2016). Bathymetric control on the spatial distribution of wave breaking in the surf zone of a natural beach. *Coastal Engineering*, 116, 180-194.

Gonçalves, G., Santos, S., Duarte, D., & Gomes, J. (2019). Monitoring Local Shoreline Changes by Integrating UASs, Airborne LiDAR, Historical Images and Orthophotos. In *GISTAM* (pp. 126-134).

Goncalves, R. M., & Awange, J. L. (2017). Three most widely used GNSS-based shoreline monitoring methods to support integrated coastal zone management policies. *Journal of Surveying Engineering*, 143(3), 05017003.

Gopi, S., Sathikumar, R., & Madhu, N. (2018). *Advanced surveying: total station, GIS and remote sensing* (Second). Pearson Education India.

Gourlay, M. R. (1968). Beach and dune erosion due to storms. *Test*.

Griggs, G., & Patsch, K. (2019). The protection/hardening of California's coast: Times are changing. *Journal of Coastal Research*, 35(5), 1051-1061.

Grue, J. (2002). On four highly nonlinear phenomena in wave theory and marine hydrodynamics. *Applied ocean research*, 24(5), 261-274.

Guenther, G. C., Cunningham, A. G., LaRocque, P. E., & Reid, D. J. (2000). Meeting the accuracy challenge in airborne lidar bathymetry. *EARSel, Dresden*.

Guenther, G.C. (1985). Airborne Laser Hydrography: System Design and Performance Factors. National Oceanic and Atmospheric Administration Professional Paper Series, National Ocean Service 1, 385 p.

Guillong, M., & Günther, D. (2002). Effect of particle size distribution on ICP-induced elemental fractionation in laser ablation-inductively coupled plasma-mass spectrometry. *Journal of Analytical Atomic Spectrometry*, 17(8), 831-837.

Guimaraes, P. V. (2014). *Numerical assessment of extreme waves condition at Rio Grande do Sul*. Lambert Academic Publishing, p. 80.

Guisado-Pintado, E. (2020). Shallow water wave modelling in the nearshore (SWAN). In *Sandy beach morphodynamics* (pp. 391-419). Elsevier.

Gujar, A. R., Ganesan, P., Iyer, S. D., Gaonkar, S. S., Ambre, N. V., Loveson, V. J., & Mislankar, P. G. (2011). Influence of morphodynamic variability over seasonal beach sediments and its probable effect on coastal development. *Ocean & coastal management*, 54(7), 514-523.

Gunarathna, P. P., Ranasinghe, D. P. L., & Sugandika, T. A. N. (2011). Assessment of nearshore wave climate off the Southern Coast of Sri Lanka. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 44(2).

Gunasinghe, G. P., Ratnayake, N. P., Ratnayake, A. S., Samaradivakara, G. V. I., Dushyantha, N. P., Jayaratne, R., Dinusha, K.A., & Silva, A. (2022). Monsoon-driven geomorphological changes along the West coast of Sri Lanka: a combined approach utilizing 'CoastSat' and Google Earth engine. *Ocean Science Journal*, 57(3), 475-492.

Gunasinghe, G. P., Ruhunage, L., Ratnayake, N. P., Ratnayake, A. S., Samaradivakara, G. V. I., & Jayaratne, R. (2021). Influence of manmade effects on geomorphology, bathymetry and coastal dynamics in a monsoon-affected river outlet in Southwest coast of Sri Lanka. *Environmental Earth Sciences*, 80, 1-16.

Hamilton, L. J. (2007). Clustering of cumulative grainsize distribution curves for shallow-marine samples with software program CLARA. *Australian Journal of Earth Sciences*, 54(4), 503-519.

Hanson, H., Gravens, M. B., & Kraus, N. C. (1988). Prototype applications of a generalized shoreline change numerical model. In *Coastal Engineering 1988* (pp. 1265-1279).

Harris, M. E., Ellis, J. T., & Barrineau, P. (2020). Evaluating the geomorphic response from sand fences on dunes impacted by hurricanes. *Ocean & coastal management*, 193, 105247.

Hayes, M. O. (1991). Geomorphology and sedimentation patterns of tidal inlets. *Proc. Coastal Sediments' 91, Seattle, ASCE*.

He, Q., & Walling, D. E. (1996). Interpreting particle size effects in the adsorption of <sup>137</sup>Cs and unsupported <sup>210</sup>Pb by mineral soils and sediments. *Journal of Environmental Radioactivity*, 30(2), 117-137.

Hegarty, C. J., & Chatre, E. (2008). Evolution of the global navigation satellite system (GNSS). *Proceedings of the IEEE*, 96(12), 1902-1917.

Helm-Clark, C. M., Rodgers, D. W., & Smith, R. P. (2004). Borehole geophysical techniques to define stratigraphy, alteration and aquifers in basalt. *Journal of applied geophysics*, 55(1-2), 3-38.

Hilldale, R. C., & Raff, D. (2008). Assessing the ability of airborne LiDAR to map river bathymetry. *Earth Surface Processes and Landforms*, 33(5), 773-783.

Holthuijsen, L. H. (2010). *Waves in Oceanic and Coastal Waters*. Cambridge University Press, p. 387. isbn: 9781139462525.

Holthuijsen, L. H., Booij, N., & Ris, R. (1993, July). A spectral wave model for the coastal zone. In *Ocean wave measurement and analysis* (pp. 630-641). ASCE.

Hu, K., Ding, P., Wang, Z., & Yang, S. (2009). A 2D/3D hydrodynamic and sediment transport model for the Yangtze Estuary, China. *Journal of Marine Systems*, 77(1-2), 114-136.

Huang, J., Jackson, D. W., & Cooper, J. A. G. (2002). Morphological monitoring of a high energy beach system using GPS and total station techniques, Runkerry, Co. Antrim, Northern Ireland. *Journal of Coastal Research*, (36 (10036)), 390-398.

Hughes, M. G., & Moseley, A. S. (2007). Hydrokinematic regions within the swash zone. *Continental Shelf Research*, 27(15), 2000-2013.

Hull, P., & Müller, G. (2002). An investigation of breaker heights, shapes and pressures. *Ocean Engineering*, 29(1), 59-79.

I. C. A. O. (2007). Annex to the Convention on International civil aviation, air traffic services. *International Civil Aviation Organization (ICAO): Montreal, QC, Canada*.

Immitzer, M., Böck, S., Einzmann, K., Vuolo, F., Pinnel, N., Wallner, A., & Atzberger, C. (2018). Fractional cover mapping of spruce and pine at 1 ha resolution combining very high and medium spatial resolution satellite imagery. *Remote sensing of environment*, 204, 690-703.

Iribarren, C. R., & Nogales, C. (1949). Protection des ports, paper presented at xviith international navigation congress, *Permanent International Association of Navigation Congresses, Lisbon, Portugal*.

Jackson, N. L., Harley, M. D., Armaroli, C., & Nordstrom, K. F. (2015). Beach morphologies induced by breakwaters with different orientations. *Geomorphology*, 239, 48-57.

Jackson, N. L., & Nordstrom, K. F. (2011). Aeolian sediment transport and landforms in managed coastal systems: a review. *Aeolian research*, 3(2), 181-196.

Janssen, P. (2004). *The interaction of ocean waves and wind*. Cambridge University Press, p. 300. isbn: 0521465400.

Jayathillake, D. (2020). *Mount Lavinia beach nourishment project successful—DG Coastal Conservation Department*. [http:// www. defence. lk/ Artic le/ view\\_ artic le/ 1679](http://www.defence.lk/Article/view_article/1679).

Jayathilaka, R. M. R. M., Ratnayake, N. P., Wijayaratna, T. M. N., Silva, K. B. A., & Arulanathan, K. (2023). A Review of coastal erosion mitigation measures on Sri Lanka's Western Coast, an Island Nation in the Indian Ocean: Current gaps and future directions. *Ocean & Coastal Management*, 242, 106653.

Jayathilaka, R. M. R. M., & Fernando, M. C. S. (2019). Numerical modelling of the spatial variation of sediment transport using wave climate schematisation method-a case study of west coast of Sri Lanka. *Journal of the National Science Foundation of Sri Lanka*, 47, 4.

Jeffreys, H. (1925). On the formation of water waves by wind. *Proceedings of the royal society of London. Series A, containing papers of a mathematical and physical character*, 107(742), 189-206.

Kanchanamala, D. P. H. M., Herath, H. M. H. K., & Nandalal, K. D. W. (2016). Impact of catchment scale on rainfall runoff modeling: Kalu Ganga river catchment upto Ratnapura. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 49(2).

Kandrot, S., & Holloway, P. (2020). Applications of drone technology for sustainable development of the coastal zone: A literature review. *Project report*.

Karunarathna, H., Pender, D., Ranasinghe, R., Short, A. D., & Reeve, D. E. (2014). The effects of storm clustering on beach profile variability. *Marine geology*, 348, 103-112.

Kaliraj, S., Chandrasekar, N., & Magesh, N. S. (2014). Impacts of wave energy and littoral currents on shoreline erosion/accretion along the south-west coast of Kanyakumari, Tamil Nadu using DSAS and geospatial technology. *Environmental Earth Sciences*, 71, 4523-4542.

Kelly, J. T., & Gontz, A. M. (2018). Using GPS-surveyed intertidal zones to determine the validity of shorelines automatically mapped by Landsat water indices. *International journal of applied earth observation and geoinformation*, 65, 92-104.

Kinsman, B. (2002). *Wind Waves: Their Generation and Propagation on the Ocean Surface*. Dover Phoenix Editions. Dover. isbn: 9780486495118.

Klemas, V. V. (2009). The role of remote sensing in predicting and determining coastal storm impacts. *Journal of Coastal Research*, 25(6), 1264-1275.

Komar, P. D. (1976). *Beach processes and sedimentation*. Prentice-Hall. Inc. Englewood Cliffs. ISBN: 9780130725950.

Komar, P. D. (1998). *Beach Processes and Sedimentation*. Upper Saddle River, New Jersey: Prentice Hall Inc., 544p.

Korteweg, D. J., & De Vries, G. (1895). XLI. On the change of form of long waves advancing in a rectangular canal, and on a new type of long stationary waves. *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, 39(240), 422-443.

Koslow, J. A. (1997). Seamounts and the ecology of deep-sea fisheries: The firm-bodied fishes that feed around seamounts are biologically distinct from their deepwater neighbors—and may be especially vulnerable to overfishing. *American Scientist*, 85(2), 168-176.

Kumar, P., Rupa Kumar, K., Rajeevan, M., & Sahai, A. K. (2007). On the recent strengthening of the relationship between ENSO and northeast monsoon rainfall over South Asia. *Climate Dynamics*, 28, 649-660.

Kumar, A., & Jayappa, K. (2009). Long and short-term shoreline changes along Mangalore coast, India. *International Journal of Environmental Research*, 3, 177–188.

Kunze, E., & Smith, S. L. (2004). The role of small-scale topography in turbulent mixing of the global ocean. *Oceanography*, 17(1), 55-64.

Laknath, D. P. C., & Sasaki, J. (2011). Wave Climate Study around Kirinda Fishery Harbour in Sri Lanka using SWAN Model. In *The Twenty-first International Offshore and Polar Engineering Conference*. OnePetro.

Lamb, H. (1932). *Hydrodynamics*, 156. Aufl., Cambridge: Univ. Press 1879–1932, 427.

Lamb, K. G. (2014). Internal wave breaking and dissipation mechanisms on the continental slope/shelf. *Annual Review of Fluid Mechanics*, 46(1), 231-254.

LaRocque, P. E., & West, G. R. (1999). Airborne laser hydrography: an introduction. In *Proc. ROPME/PERSGA/IHB workshop on hydrographic activities in the ROPME sea area and Red Sea* (Vol. 4, pp. 1-15).

Le Mehaute, B. (1962). On non-saturated breakers and the wave run-up. *Coastal Engineering Proceedings*, (8), 6-6.

Lemos, C. M. (2013). *Wave breaking: a numerical study* (Vol. 71). Springer Science & Business Media.

Leatherman, S. P. (2001). Social and economic costs of sea level rise. In *International Geophysics* (Vol. 75, pp. 181-223). Academic Press.

Leatherman, S. P. (2003). Shoreline change mapping and management along the US East Coast. *Journal of Coastal Research*, 5-13.

Le Claire, P. D., & Ting, F. C. (2017). Measurements of suspended sediment transport and turbulent coherent structures induced by breaking waves using two-phase volumetric three-component velocimetry. *Coastal Engineering*, 121, 56-76.

Lee, H. J. (2014). A review of sediment dynamical processes in the west coast of Korea, eastern Yellow Sea. *Ocean Science Journal*, 49, 85-95.

Lee, J. M., Park, J. Y., & Choi, J. Y. (2013). Evaluation of sub-aerial topographic surveying techniques using total station and RTK-GPS for applications in macrotidal sand beach environment. *Journal of Coastal Research*, (65 (10065)), 535-540.

Lee, J. S., Baek, J. Y., Jung, D., Shim, J. S., Lim, H. S., & Jo, Y. H. (2019). Estimate of coastal water depth based on aerial photographs using a low-altitude remote sensing system. *Ocean Science Journal*, 54, 349-362.

Lemos, C. M. (2013). *Wave breaking: a numerical study* (Vol. 71). Springer Science & Business Media.

Lesser, G. R., Roelvink, J. V., van Kester, J. T. M., & Stelling, G. S. (2004). Development and validation of a three-dimensional morphological model. *Coastal engineering*, 51(8-9), 883-915.

Li, Y., Zhang, C., Dai, W., Chen, D., Sui, T., Xie, M., & Chen, S. (2022). Laboratory investigation on morphology response of submerged artificial sandbar and its impact on beach evolution under storm wave condition. *Marine Geology*, 443, 106668.

Liu, Q., Trinder, J., & Turner, I. L. (2017). Automatic super-resolution shoreline change monitoring using Landsat archival data: a case study at Narrabeen–Collaroy Beach, Australia. *Journal of Applied Remote Sensing*, 11(1), 016036-016036.

Lorensen, W. E., & Cline, H. E. (1987). Marching cubes: A high resolution 3D surface construction algorithm. *ACM siggraph computer graphics*, 21(4), 163-169.

Long, J. W., & Özkan-Haller, H. T. (2005). Offshore controls on nearshore rip currents. *Journal of geophysical research: oceans*, 110(C12).

Lurton, X. (2002). *An introduction to underwater acoustics: principles and applications* (Vol. 2). London: springer.

Marfai, M. A., Winastuti, R., Wicaksono, A., & Mutaqin, B. W. (2022). Coastal morphodynamic analysis in Buleleng Regency, Bali—Indonesia. *Natural Hazards*, 111(1), 995-1017.

- Martí, A., Portell, J., Amblas, D., de Cabrera, F., Vilà, M., Riba, J., & Mitchell, G. (2022). Compression of multibeam echosounders bathymetry and water column data. *Remote Sensing*, 14(9), 2063.
- Martins, K. (2017). *Wave transformation in the surf zone* (Doctoral dissertation, University of Bath).
- Mason, D. C., Gurney, C., & Kennett, M. (2000). Beach topography mapping—A comparison of techniques. *Journal of Coastal Conservation*, 6, 113-124.
- Masselink, G. (1995). Group bound long waves as a source of infragravity energy in the surf zone. *Continental Shelf Research*, 15(13), 1525-1547.
- Masselink, G., & Hughes, M. G. (2003). *Introduction to Coastal Processes and Geomorphology*. A Hodder Arnold Publication. Arnold. ISBN: 9780340764107.
- Masselink, G., Russell, P., Rennie, A., Brooks, S., & Spencer, T. (2020). Impacts of climate change on coastal geomorphology and coastal erosion relevant to the coastal and marine environment around the UK. *MCCIP Science Review*, 2020, 158-189.
- Mayer, L. A. (2006). Frontiers in seafloor mapping and visualization. *Marine Geophysical Researches*, 27, 7-17.
- McLaren, P., & Bowles, D. (1985). The effects of sediment transport on grain-size distributions. *Journal of Sedimentary Research*, 55(4), 457-470.
- Meyer, B. K., Vance, R. K., Bishop, G. A., & Dai, D. (2016). Shoreline dynamics and environmental change under the modern marine transgression: St. Catherines Island, Georgia, USA. *Environmental Earth Sciences*, 75, 1-16.
- Miles, J. R., & Russell, P. E. (2004). Dynamics of a reflective beach with a low tide terrace. *Continental Shelf Research*, 24(11), 1219-1247.

- Miles, J. W. (1957). On the generation of surface waves by shear flows. *Journal of Fluid Mechanics*, 3(2), 185-204.
- Mishra, P., Patra, S. K., Ramana Murthy, M. V., Mohanty, P. K., & Panda, U. S. (2011). Interaction of monsoonal wave, current and tide near Gopalpur, east coast of India, and their impact on beach profile: a case study. *Natural Hazards*, 59, 1145-1159.
- Mitri, G., Nader, M., Abou Dagher, M., & Gebrael, K. (2020). Investigating the performance of sentinel-2A and Landsat 8 imagery in mapping shoreline changes. *Journal of Coastal Conservation*, 24, 1-9.
- Mofjeld, H. O., Symons, C. M., Lonsdale, P., González, F. I., & Titov, V. V. (2004). Tsunami scattering and earthquake faults in the deep Pacific Ocean. *Oceanography*, 17(1), 38-46.
- Moore, L. J. (2000). Shoreline mapping techniques. *Journal of coastal research*, 111-124.
- Morton, R. A. (1991, June). Accurate shoreline mapping: past, present, and future. In *Coastal sediments* (pp. 997-1010). ASCE.
- Morton, R. A., & Speed, F. M. (1998). Evaluation of shorelines and legal boundaries controlled by water levels on sandy beaches. *Journal of Coastal Research*, 1373-1384.
- Mudiyansele, J. B. R., Hettiarachchi, S. S. L., Samarawickrama, S. P., & Ranasinghe, R. W. (2015). Climate Change Impacts on Seasonal Wave Climate of the Western Coast of Sri Lanka. In *3rd International Symposium on, Advances in Civil and Environmental Engineering Practices, For Sustainable Development 2015*.
- Munk, W., & Wunsch, C. (1998). Abyssal recipes II: Energetics of tidal and wind mixing. *Deep Sea Research Part I: Oceanographic Research Papers*, 45(12), 1977-2010.

Mury, A., Collin, A., & James, D. (2019). Morpho–sedimentary monitoring in a coastal area, from 1D to 2.5 D, using airborne drone imagery. *Drones*, 3(3), 62.

Naibbi, A. I., & Ibrahim, S. S. (2014). An assessment of the existing continuously operating reference stations (CORS) in Nigeria: An exploration using geographical information system (GIS). *American Journal of Geographic Information System*, 3(4), 147-157.

Nicholas, G. (2010). Network CORS, who wants it? Un-published Thesis. University of New South Wales, Australia.

Nielsen, P (2009). *Coastal and Estuarine Processes*. Advanced Series on Ocean Engineering, p. 343. ISBN: 9789813101135.

Niya, A. K., Alesheikh, A. A., Soltanpor, M., & Kheirkhahzarkesh, M. M. (2013). Shoreline change mapping using remote sensing and GIS. *International Journal of Remote Sensing Applications*, 3(3), 102-107.

Nordstrom, K. F. (1977). The use of grain size statistics to distinguish between high- and moderate-energy beach environments. *Journal of Sedimentary Research*, 47(3), 1287-1294.

Nordstrom, K. F. (2014). Living with shore protection structures: a review. *Estuarine, coastal and shelf science*, 150, 11-23.

Oertel, G. F. (1988). Processes of sediment exchange between tidal inlets, ebb deltas and barrier islands. In *Hydrodynamics and sediment dynamics of tidal inlets* (pp. 297-318). Springer New York.

Pajak, M. J., & Leatherman, S. (2002). The high-water line as shoreline indicator. *Journal of Coastal Research*, 329-337.

- Parrish, C., Sault, M., White, S. A., & Sellars, J. (2005). Empirical analysis of aerial camera filters for shoreline mapping. In: *ASPRS 2005 annual conference "geospatial goes global: from your neighborhood to the whole planet"*, American Society for Photogrammetry and Remote Sensing, Baltimore, Maryland, 7–11 Mar 2005.
- Pastol, Y. (2011). Use of airborne LIDAR bathymetry for coastal hydrographic surveying: the French experience. *Journal of Coastal Research*, (62), 6-18.
- Pattiaratchi, C., Azmy, N., de Vos, A. (2020). *The tragedy of Mount Lavinia beach*. <https://oceanswell.org/books-reports/the-tragedy-of-mount-lavinia-beach>.
- Pedregosa, F., Varoquaux, G., Gramfort, A., Michel, V., Thirion, B., Grisel, O., & Duchesnay, E. (2011). Scikit-learn: Machine learning in Python. *the Journal of machine Learning research*, 12, 2825-2830.
- Pe'eri, S., & Long, B. (2011). LIDAR technology applied in coastal studies and management. *Journal of Coastal Research*, (62), 1-5.
- Peregrine, D. H. (1983). Breaking waves on beaches. *Annual review of fluid mechanics*, 15(1), 149-178.
- Perera, U. L. H. P., Ratnayake, A. S., Weerasingha, W. A. D. B., Subasinghe, H. C. S., & Wijewardhana, T. D. U. (2023). Grain size distribution of modern beach sediments in Sri Lanka. *Anthropocene Coasts*, 6(1), 10.
- Perera, K. R. L., & Ranasinghe, D. P. L. (2021). An analysis of causes of coastal erosion in Calido Beach, Kalutara, West Coast of Sri Lanka. In *International Research Conference, Kotelawala Defence University*.

Pieri, L., Bittelli, M., & Pisa, P. R. (2006). Laser diffraction, transmission electron microscopy and image analysis to evaluate a bimodal Gaussian model for particle size distribution in soils. *Geoderma*, 135, 118-132.

Pinet, P. R. (2019). *Invitation to oceanography*. Jones & Bartlett Learning.

Postacchini, M., Russo, A., Carniel, S., & Brocchini, M. (2016). Assessing the hydro-morphodynamic response of a beach protected by detached, impermeable, submerged breakwaters: a numerical approach. *Journal of Coastal Research*, 32(3), 590-602.

Powell, E. J., Tyrrell, M. C., Milliken, A., Tirpak, J. M., & Staudinger, M. D. (2019). A review of coastal management approaches to support the integration of ecological and human community planning for climate change. *Journal of coastal conservation*, 23(1), 1-18.

Power, H. E., Hughes, M. G., Aagaard, T., & Baldock, T. E. (2010). Nearshore wave height variation in unsaturated surf. *Journal of Geophysical Research: Oceans*, 115(C8).

Prodger, S., Russell, P., Davidson, M., Miles, J., & Scott, T. (2016). Understanding and predicting the temporal variability of sediment grain size characteristics on high-energy beaches. *Marine Geology*, 376, 109-117.

Rajganapathi, V. C., Jitheshkumar, N., Sundararajan, M., Bhat, K. H., & Velusamy, S. (2013). Grain size analysis and characterization of sedimentary environment along Thiruchendur coast, Tamilnadu, India. *Arabian Journal of Geosciences*, 6, 4717-4728.

Rajith, K., Kurian, N. P., Thomas, K. V., Prakash, T. N., & Hameed, T. S. S. (2008). Erosion and accretion of a placer mining beach of SW Indian coast. *Marine Geodesy*, 31(2), 128-142.

Ramana, M. M. V., & Pari, Y. (2009). Application of wave transformation models for estimation of morphological changes at Vellar estuary, southeast coast of India. *Natural hazards*, 49, 371-385.

Rashedi, S. A., & Siad, A. (2016). Grain size analysis and depositional environment for beach sediments along Abu Dhabi coast, United Arab Emirates. *International Journal of Scientific & Technology Research*, 5(07).

Ratnayake, A. S., & Perera, U. L. H. P. (2022). Coastal zone management in Sri Lanka: a lesson after recent naval accidents. *Marine Pollution Bulletin*, 182, 113994.

Ratnayake, N. P., Ratnayake, A. S., Azoor, R. M., Weththasinghe, S. M., Seneviratne, I. D. J., Senarathne, N., & Dushyantha, N. (2019). Erosion processes driven by monsoon events after a beach nourishment and breakwater construction at Uswetakeiyawa beach, Sri Lanka. *SN Applied Sciences*, 1, 1-11.

Ratnayake, N. P., Ratnayake, A. S., Keegle, P. V., Mallawa Arachchi, M. A. K. M., & Premasiri, H. M. R. (2018). An analysis of beach profile changes subsequent to the Colombo Harbor Expansion Project, Sri Lanka. *Environmental earth sciences*, 77, 1-11.

Ratnayake, N. P., Silva, K. B. A., & Kumara, I. G. I. K. (2013). Chloride contamination in construction aggregates due to periodic saline water intrusion: a case study in the Kaluganga River Estuary, Sri Lanka. *Environmental earth sciences*, 69, 2529-2540.

Ratnayakage, S. M. S., Sasaki, J., Suzuki, T., Jayaratne, R., Ranawaka, R. A. S., & Pathmasiri, S. D. (2020). On the status and mechanisms of coastal erosion in Marawila Beach, Sri Lanka. *Natural Hazards*, 103(1), 1261-1289.

Ribeiro, F. J., Pedroza, A. D. C., & Costa, L. H. M. K. (2011). Deepwater monitoring system using logistic-support vessels in underwater sensor networks. In *The 21st International Offshore (Ocean) and Polar Engineering Conference-ISOPE* (Vol. 2, pp. 327-333).

Ris, R. C. (1997). Spectral modelling of wind waves in coastal areas. *Communications on Hydraulic and Geotechnical Engineering*.

Roberts, J. M., Brown, C. J., Long, D., & Bates, C. R. (2005). Acoustic mapping using a multibeam echosounder reveals cold-water coral reefs and surrounding habitats. *Coral Reefs*, 24, 654-669.

Roelvink, J. D., Walstra, D. J. R., van der Wegen, M., & Ranasinghe, R. (2016). Modeling of coastal morphological processes. *Springer Handbook of Ocean Engineering*, 611-634.

Ruessink, G., & Ranasinghe, R. (2015). Beaches. *Coastal Environments and Global Change*, 149-177.

Ruggiero, P., Komar, P. D., McDougal, W. G., Marra, J. J., & Beach, R. A. (2001). Wave runup, extreme water levels and the erosion of properties backing beaches. *Journal of coastal research*, 407-419.

Ruggiero, P., Buijsman, M., Kaminsky, G. M., & Gelfenbaum, G. (2010). Modeling the effects of wave climate and sediment supply variability on large-scale shoreline change. *Marine Geology*, 273(1-4), 127-140.

Salameh, E., Frappart, F., Almar, R., Baptista, P., Heygster, G., Lubac, B., & Laignel, B. (2019). Monitoring beach topography and nearshore bathymetry using spaceborne remote sensing: A review. *Remote Sensing*, 11(19), 2212.

- Saleem, A., & Awange, J. L. (2019). Coastline shift analysis in data deficient regions: Exploiting the high spatio-temporal resolution Sentinel-2 products. *Catena*, 179, 6-19.
- Samarasekara, R. S. M., Sasaki, J., Jayaratne, R., Suzuki, T., Ranawaka, R. A. S., & Pathmasiri, S. D. (2018). Historical changes in the shoreline and management of Marawila Beach, Sri Lanka, from 1980 to 2017. *Ocean & Coastal Management*, 165, 370-384.
- Samarasekara, R. S. M., Sahthy, M. M., Siriwardana, A. H. M. S., & Siriwardana, H. P. A. M. (2022). Assessment of wave climate change and its impact on littoral drift along the Kalutara and Kalpitiya beaches in Sri Lanka. *Journal of the National Science Foundation of Sri Lanka*, 50(4).
- Schipper, M. A., Ludka, B. C., Raubenheimer, B., Luijendijk, A. P., & Schlacher, T. A. (2021). Beach nourishment has complex implications for the future of sandy shores. *Nature Reviews Earth & Environment*, 2(1), 70-84.
- Schwimmer, R. A. (2001). Rates and processes of marsh shoreline erosion in Rehoboth Bay, Delaware, USA. *Journal of Coastal Research*, 672-683.
- Scott, T., Austin, M., Masselink, G., & Russell, P. (2016). Dynamics of rip currents associated with groynes—field measurements, modelling and implications for beach safety. *Coastal Engineering*, 107, 53-69.
- Scott, D. B. (2005). Coastal changes, rapid. *Encyclopedia of coastal sciences*. Springer, the Netherlands, 253-255.
- Sedrati, M., & Anthony, E. J. (2007). Storm-generated morphological change and longshore sand transport in the intertidal zone of a multi-barred macrotidal beach. *Marine geology*, 244(1-4), 209-229.

Selvan, S. C., Kankara, R. S., Prabhu, K., & Rajan, B. (2020). Shoreline change along Kerala, south-west coast of India, using geo-spatial techniques and field measurement. *Natural Hazards*, 100(1), 17-38.

Sénéchal, N., Dupuis, H., Bonneton, P., Howa, H., & Pedreros, R. (2001). Observation of irregular wave transformation in the surf zone over a gently sloping sandy beach on the French Atlantic coastline. *Oceanologica Acta*, 24(6), 545-556.

Shelton, S., & Pushpawela, B. (2022). Observed southwest monsoon rainfall changes in Sri Lanka and possible mechanisms. *Modeling Earth Systems and Environment*, 8(3), 4165-4175.

Short, A. D. (1975). Multiple offshore bars and standing waves. *Journal of Geophysical Research*, 80(27), 3838-3840.

Short, A. D. (2000). *Handbook of beach and shoreface morphodynamics*. John Wiley. ISBN: 9780471965701.

Short, A. D. (1992). Beach systems of the central Netherlands coast: processes, morphology and structural impacts in a storm driven multi-bar system. *Marine Geology*, 107(1-2), 103-137.

Sinha, S., Mondal, S. K., Mondal, S., Hansda, S., & Patra, U. K. (2022). Deciphering grain size populations and hydromorphological characteristics of the beach-dune system of East Coast of India: implications to coastal resilience and hazard mitigation. *Environmental earth sciences*, 81(5), 147.

SLCORSnet. (2016). Sri Lanka Continuously Operating Reference Station Network. Survey Department of Sri Lanka. <http://www.slcorsnet.survey.gov.lk/>

Smit, P., Janssen, T., Holthuijsen, L., & Smith, J. (2014). Non-hydrostatic modeling of surf zone wave dynamics. *Coastal Engineering*, 83, 36-48.

Smith, A. W. S., & Jackson, L. A. (1992). The variability in width of the visible beach. *Shore and Beach*, 60(2), 7-14.

Smith, J. M., Larson, M., & Kraus, N. C. (1993). Longshore current on a barred beach: Field measurements and calculation. *Journal of Geophysical Research: Oceans*, 98(C12), 22717-22731.

Smith, K. E., Terrano, J. F., Pitchford, J. L., & Archer, M. J. (2021). Coastal wetland shoreline change monitoring: A comparison of shorelines from high-resolution WorldView Satellite imagery, aerial Imagery, and field surveys. *Remote Sensing*, 13(15), 3030.

Soomere, T., Kask, A., Kask, J., & Healy, T. (2008). Modelling of wave climate and sediment transport patterns at a tideless embayed beach, Pirita Beach, Estonia. *Journal of Marine Systems*, 74, S133-S146.

Spalding, M. D., Ruffo, S., Lacambra, C., Meliane, I., Hale, L. Z., Shepard, C. C., & Beck, M. W. (2014). The role of ecosystems in coastal protection: Adapting to climate change and coastal hazards. *Ocean & Coastal Management*, 90, 50-57.

Spieler, O., Alidibirov, M., & Dingwell, D. B. (2003). Grain-size characteristics of experimental pyroclasts of 1980 Mount St. Helens cryptodome dacite: effects of pressure drop and temperature. *Bulletin of Volcanology*, 65, 90-104.

Stokes, G. G. (1847). On the theory of oscillatory waves. *Transactions of the Cambridge Philosophical Society*, 8, 441-455.

Stringari, C. E. (2020). *Data-driven investigations of broken wave behaviour in the surf and swash zones* (Doctoral dissertation, University of Newcastle).

Su, D., Wijeratne, S., & Pattiaratchi, C. B. (2021). Monsoon influence on the island mass effect around the Maldives and Sri Lanka. *Frontiers in Marine Science*, 8, 645672.

Svendsen, I. A. (2006). Advanced series on ocean engineering. *Introduction to Nearshore Hydrodynamics*. World Scientific Publishing Co. Pte. Ltd.

Svendsen, I. A., Madsen, P. Å., & Hansen, J. B. (1978). Wave characteristics in the surf zone. In *Coastal Engineering 1978* (pp. 520-539).

Tak, W. J., Jun, K. W., Kim, S. D., & Lee, H. J. (2020). Using drone and LiDAR to assess coastal erosion and shoreline change due to the construction of coastal structures. *Journal of Coastal Research*, 95(SI), 674-678.

Tascón, A. (2018). Influence of particle size distribution skewness on dust explosibility. *Powder Technology*, 338, 438-445.

Thankappan, N., Varangalil, N., Kachapally Varghese, T., & Njaliplackil Philipose, K. (2018). Coastal morphology and beach stability along Thiruvananthapuram, south-west coast of India. *Natural Hazards*, 90, 1177-1199.

Thom, B. G., & Hall, W. (1991). Behaviour of beach profiles during accretion and erosion dominated periods. *Earth surface processes and landforms*, 16(2), 113-127.

Topouzelis, K., Spondylidis, S. C., Papakonstantinou, A., & Soulakellis, N. (2016). The use of Sentinel-2 imagery for seagrass mapping: Kalloni Gulf (Lesvos Island, Greece) case study. In *Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016)* (Vol. 9688, pp. 460-466). SPIE.

Trouw, K., Zimmermann, N., Mathys, M., Delgado, R., & Roelvink, D. (2012). Numerical modelling of hydrodynamics and sediment transport in the surf zone: A

sensitivity study with different types of numerical models. *Coastal Engineering Proceedings*, 1(33), 23.

Troy, C. D., Cheng, Y. T., Lin, Y. C., & Habib, A. (2021). Rapid lake Michigan shoreline changes revealed by UAV LiDAR surveys. *Coastal Engineering*, 170, 104008.

Tu, T. M., Su, S. C., Shyu, H. C., & Huang, P. S. (2001). A new look at IHS-like image fusion methods. *Information fusion*, 2(3), 177-186.

Tucker, M. E., & Jones, S. J. (2023). *Sedimentary petrology*. John Wiley & Sons.  
Unverricht, D., Szczuciński, W., Stattegger, K., Jagodziński, R., Le, X. T., & Kwong,

L. L. W. (2013). Modern sedimentation and morphology of the subaqueous Mekong Delta, Southern Vietnam. *Global and Planetary Change*, 110, 223-235.

Van Dongeren, A. R. J. A., Battjes, J., Janssen, T., Van Noorloos, J., Steenhauer, K., Steenbergen, G., & Reniers, A. J. H. M. (2007). Shoaling and shoreline dissipation of low-frequency waves. *Journal of Geophysical Research: Oceans*, 112(C2).

Van der Walt, S., Schönberger, J. L., Nunez-Iglesias, J., Boulogne, F., Warner, J. D., Yager, N., & Yu, T. (2014). scikit-image: image processing in Python. *PeerJ*, 2, e453.

Vos, K., Harley, M. D., Splinter, K. D., Simmons, J. A., & Turner, I. L. (2019b). Sub-annual to multi-decadal shoreline variability from publicly available satellite imagery. *Coastal Engineering*, 150, 160-174.

Vos, K., Splinter, K. D., Harley, M. D., Simmons, J. A., & Turner, I. L. (2019a). CoastSat: A Google Earth Engine-enabled Python toolkit to extract shorelines from publicly available satellite imagery. *Environmental Modelling & Software*, 122, 104528.

Warnasuriya, T. W. S., Gunaalan, K., & Gunasekara, S. S. (2018). Google earth: A new resource for shoreline change estimation—Case study from Jaffna Peninsula, Sri Lanka. *Marine Geodesy*, 41(6), 546-580.

Webb, P. (2012). *Introduction to Oceanography*. Roger Williams University, p. 393. isbn: 5015582382.

Wei, Z., & Jia, Y. (2014). Non-hydrostatic finite element model for coastal wave processes. *Coastal engineering*, 92, 31-47.

Wei, Z., Li, C., Dalrymple, R. A., Derakhti, M., & Katz, J. (2018). Chaos in breaking waves. *Coastal Engineering*, 140, 272-291.

Williams, J. J., & Esteves, L. S. (2017). Guidance on setup, calibration, and validation of hydrodynamic, wave, and sediment models for shelf seas and estuaries. *Advances in civil engineering*, 2017.

Wozencraft, J., & Millar, D. (2005). Airborne lidar and integrated technologies for coastal mapping and nautical charting. *Marine Technology Society Journal*, 39(3).

Wright, L. D., & Short, A. D. (1984). Morphodynamic variability of surf zones and beaches: a synthesis. *Marine geology*, 56(1-4), 93-118. DOI: 10.1016/0025-3227(84)90008-2.

Wright, L. D., Guza, R. T., & Short, A. D. (1982). Dynamics of a high-energy dissipative surf zone. *Marine geology*, 45(1-2), 41-62.

WW3DG, W. I. D. G. (2016). *User manual and system documentation of WAVEWATCH III®*, version 5.16, Tech. Note 329. NOAA/NWS/NCEP/MMAB, College Park, MD, USA, 326 pp.+ Appendices.

Yang, L., & Dong, Y. (2017). Research progress of coastal dunes response to storm. *Advances in Earth Science*, 32(7), 716-722.

Yang, X., & Li, J. (Eds.). (2012). *Advances in mapping from remote sensor imagery: techniques and applications*. CRC Press.

Yermolaev, O., Usmanov, B., Gafurov, A., Poesen, J., Vedeneeva, E., Lisetskii, F., & Nicu, I. C. (2021). Assessment of shoreline transformation rates and landslide monitoring on the bank of Kuibyshev reservoir (Russia) using multi-source data. *Remote Sensing*, 13(21), 4214.

Yong, L., Chengmin, H., Baoliang, W., Xiafei, T., & Jingjing, L. (2017). A unified expression for grain size distribution of soils. *Geoderma*, 288, 105-119.

Yoshikawa, S., & Nemoto, K. (2010). Seasonal variations of sediment transport to a canyon and coastal erosion along the Shimizu coast, Suruga Bay, Japan. *Marine Geology*, 271(1-2), 165-176.

Young, S. S., Rao, S., & Dorey, K. (2021). Monitoring the erosion and accretion of a human-built living shoreline with drone technology. *Environmental Challenges*, 5, 100383.

Yu, K., Hu, C., Muller-Karger, F. E., Lu, D., & Soto, I. (2011). Shoreline changes in west-central Florida between 1987 and 2008 from Landsat observations. *International Journal of Remote Sensing*, 32(23), 8299-8313.

Zhang, K., Douglas, B. C., & Leatherman, S. P. (2004). Global warming and coastal erosion. *Climatic change*, 64, 41-58.

Zoysa, S., Basnayake, V., Samarasinghe, J. T., Gunathilake, M. B., Kantamaneni, K., Muttill, N., ... & Rathnayake, U. (2023). Analysis of multi-temporal shoreline changes due to a harbor using remote sensing data and GIS techniques. *Sustainability*, 15(9), 7651.