

REFERENCES

- [1] Y. Hu, S. C. Liu, and W. Dong, *Earthquake engineering*, 1st ed. London ; New York: E&FN Spon, 1996.
- [2] B. Kundu, N. K. Vissa, and V. K. Gahalaut, "Influence of anthropogenic groundwater unloading in Indo-Gangetic plains on the 25 April 2015 Mw 7.8 Gorkha, Nepal earthquake: THE 25 APRIL 2015 MW 7.8 NEPAL EARTHQUAKE," *Geophys. Res. Lett.*, vol. 42, no. 24, p. 10,607-10,613, Dec. 2015, doi: 10.1002/2015GL066616.
- [3] Kiswondari, "Peta Bencana Nasional, BMKG: 13 Zona Megathrust dan 295 Sesar Aktif." Accessed: Dec. 27, 2022. [Online]. Available: <https://nasional.sindonews.com/read/963487/15/peta-bencana-nasional-bmkg-13-zona-megathrust-dan-295-sesar-aktif-1670476327/>
- [4] B. P. S. Badan Pusat Statistik, "Jumlah Penduduk Hasil Proyeksi Menurut Provinsi dan Jenis Kelamin (Ribuan Jiwa), 2018-2020," Badan Pusat Statistik. Accessed: Dec. 24, 2022. [Online]. Available: <https://www.bps.go.id/indicator/12/1886/1/jumlah-penduduk-hasil-proyeksi-menurut-provinsi-dan-jenis-kelamin.html>
- [5] MAIPARK Indonesia, *Webinar MAIPARK 2020: Kajian Risiko Tsunami Megathrust Selatan Jawa*, (Sept. 28, 2020). Accessed: Dec. 27, 2020. [Online Video]. Available: <https://www.youtube.com/watch?v=Bg4jgFjVGEI&list=PLc-15UqMQl5OgU-eoXpaja8uWGJ-9EmeN&index=3>
- [6] BMKG, "Gempa Lombok Picu Megathrust Selatan Jawa - Selat Sunda, BMKG: Itu Hoax." Accessed: Dec. 27, 2022. [Online]. Available: <https://www.bmkg.go.id/berita/?p=gempa-lombok-picu-megathrust-selatan-jawa-selat-sunda-bmkg-itu-hoax&tag=press-release&lang=ID>
- [7] R. D. Cicerone, J. E. Ebel, and J. Britton, "A systematic compilation of earthquake precursors," *Tectonophysics*, vol. 476, no. 3–4, pp. 371–396, Oct. 2009, doi: 10.1016/j.tecto.2009.06.008.
- [8] K. Wang, "Predicting the 1975 Haicheng Earthquake," *Bull. Seismol. Soc. Am.*, vol. 96, no. 3, pp. 757–795, June 2006, doi: 10.1785/0120050191.
- [9] G. Igarashi *et al.*, "Ground-Water Radon Anomaly Before the Kobe Earthquake in Japan," *Science*, vol. 269, no. 5220, pp. 60–61, July 1995, doi: 10.1126/science.269.5220.60.
- [10] H. L. Firdaus, Y. F. Luckyarno, M. M. Waruwu, and R. Wijaya, "Detection System For Deterministic Earthquake Prediction Based On Radon Concentration Changes In Indonesia," vol. 15, p. 12, 2020.
- [11] T. Oka Pratama, "Earthquake Early Warning System Based on Radon Gas Concentration and Groundwater Level Fluctuation at Yogyakarta Region-Indonesia," Thesis, Universitas Gadjah Mada, Yogyakarta-Indonesia, 2021.
- [12] P. Supendi *et al.*, "Potential megathrust earthquakes and tsunamis off the southern coast of West Java, Indonesia," In Review, preprint, Nov. 2020. doi: 10.21203/rs.3.rs-104583/v1.

- [13] E. Pranita, "BMKG: Warga Harus Akhiri Kepanikan Potensi Tsunami dan Gempa Megathrust," Sept. 27, 2020. Accessed: Jan. 03, 2023. [Online]. Available: <https://www.kompas.com/sains/read/2020/09/27/190200723/bmkg-warga-harus-akhiri-kepanikan-potensi-tsunami-dan-gempa-megathrust?page=all>
- [14] B. Prihantoro, "Penjelasan Kepala BMKG soal Kabar Viral Gempa Megathrust di Jakarta Baca artikel detiknews, 'Penjelasan Kepala BMKG soal Kabar Viral Gempa Megathrust di Jakarta' selengkapnya <https://news.detik.com/berita/d-3894133/penjelasan-kepala-bmkg-soal-kabar-viral-gempa-megathrust-di-jakarta>. Download Apps Detikcom Sekarang <https://apps.detik.com/detik/>," Mar. 02, 2018. Accessed: Jan. 03, 2023. [Online]. Available: <https://news.detik.com/berita/d-3894133/penjelasan-kepala-bmkg-soal-kabar-viral-gempa-megathrust-di-jakarta>
- [15] "LIPI Sebut Tidak Ada Teknologi yang Bisa Prediksi Gempa," Oct. 02, 2018. Accessed: Jan. 03, 2023. [Online]. Available: <https://www.cnnindonesia.com/teknologi/20181002142337-199-335001/lipi-sebut-tidak-ada-teknologi-yang-bisa-prediksi-gempa>
- [16] F. W. Handoyo *et al.*, "Enhancing Disaster Resilience: Insights from the Cianjur Earthquake to Improve Indonesia's Risk Financing Strategies," *Sage Open*, vol. 14, no. 2, p. 21582440241256777, Apr. 2024, doi: 10.1177/21582440241256777.
- [17] V. Walia, H. S. Virk, T. F. Yang, S. Mahajan, M. Walia, and B. S. Bajwa, "Earthquake Prediction Studies Using Radon as a Precursor in N-W Himalayas, India: A Case Study," *Terr. Atmospheric Ocean. Sci.*, vol. 16, no. 4, p. 775, 2005, doi: 10.3319/TAO.2005.16.4.775(GIG).
- [18] M. S. Hossain, A. A. Hasan, S. Guha, and K. Andersson, "A Belief Rule Based Expert System to Predict Earthquake under Uncertainty," p. 16.
- [19] A. Ikram and U. Qamar, "Developing an expert system based on association rules and predicate logic for earthquake prediction," *Knowl.-Based Syst.*, vol. 75, pp. 87–103, Feb. 2015, doi: 10.1016/j.knosys.2014.11.024.
- [20] P. Hajikhodaverdikhan, M. Nazari, M. Mohsenizadeh, S. Shamshirband, and K.-W. Chau, "Earthquake prediction with meteorological data by particle filter-based support vector regression," *Eng. Appl. Comput. Fluid Mech.*, vol. 12, no. 1, pp. 679–688, 2018, doi: 10.1080/19942060.2018.1512010.
- [21] R. Tehseen, M. S. Farooq, and A. Abid, "Earthquake Prediction Using Expert Systems: A Systematic Mapping Study," *Sustainability*, vol. 12, no. 6, p. 2420, Mar. 2020, doi: 10.3390/su12062420.
- [22] K. M. Asim, F. Martínez-Álvarez, A. Basit, and T. Iqbal, "Earthquake magnitude prediction in Hindukush region using machine learning techniques," *Nat. Hazards*, vol. 85, no. 1, pp. 471–486, Jan. 2017, doi: 10.1007/s11069-016-2579-3.
- [23] G. Asencio-Cortés, A. Morales-Esteban, X. Shang, and F. Martínez-Álvarez, "Earthquake prediction in California using regression algorithms

- and cloud-based big data infrastructure,” *Comput. Geosci.*, vol. 115, no. May 2017, pp. 198–210, 2018, doi: 10.1016/j.cageo.2017.10.011.
- [24] T. Khan, M. Rabbani, S. M. Tanvir Siddiquee, and A. Majumder, “An Innovative Data Mining Approach for Determine Earthquake Probability Based on Linear Regression Algorithm,” in *Proc. IEEE Int. Conf. Electr., Comput. Commun. Technol., ICECCT*, Institute of Electrical and Electronics Engineers Inc., 2019, doi: 10.1109/ICECCT.2019.8869286.
- [25] Md. H. A. Banna *et al.*, “Application of Artificial Intelligence in Predicting Earthquakes: State-of-the-Art and Future Challenges,” *IEEE Access*, vol. 8, pp. 192880–192923, 2020, doi: 10.1109/ACCESS.2020.3029859.
- [26] Q. Ye, R. P. Singh, A. He, S. Ji, and C. Liu, “Characteristic behavior of water radon associated with Wenchuan and Lushan earthquakes along Longmenshan fault,” *Radiat. Meas.*, vol. 76, pp. 44–53, May 2015, doi: 10.1016/j.radmeas.2015.04.001.
- [27] C. Barman, D. Ghose, B. Sinha, and A. Deb, “Detection of earthquake induced radon precursors by Hilbert Huang Transform,” *J. Appl. Geophys.*, vol. 133, pp. 123–131, Oct. 2016, doi: 10.1016/j.jappgeo.2016.08.004.
- [28] J. W. Kim, H. Y. Joo, R. Kim, and J. H. Moon, “Investigation of the relationship between earthquakes and indoor radon concentrations at a building in Gyeongju, Korea,” *Nucl. Eng. Technol.*, vol. 50, no. 3, pp. 512–518, Apr. 2018, doi: 10.1016/j.net.2017.12.010.
- [29] B. Zmazek, M. Živčić, L. Todorovski, S. Džeroski, J. Vaupotič, and I. Kobal, “Radon in soil gas: How to identify anomalies caused by earthquakes,” *Appl. Geochem.*, vol. 20, no. 6, pp. 1106–1119, June 2005, doi: 10.1016/j.apgeochem.2005.01.014.
- [30] A. D. K. Tareen, M. S. A. Nadeem, K. J. Kearfott, K. Abbas, M. A. Khawaja, and M. Rafique, “Descriptive analysis and earthquake prediction using boxplot interpretation of soil radon time series data,” *Appl. Radiat. Isot.*, vol. 154, p. 108861, Dec. 2019, doi: 10.1016/j.apradiso.2019.108861.
- [31] T. Kuo, W. Chen, and C. Ho, “Anomalous decrease in groundwater radon before 2016 M w 6.4 Meinong earthquake and its application in Taiwan,” *Appl. Radiat. Isot.*, vol. 136, pp. 68–72, June 2018, doi: 10.1016/j.apradiso.2018.02.015.
- [32] B. N. P. B. Badan Nasional Penanggulangan Bencana, *Pedoman Sistem Peringatan Dini Berbasis Masyarakat*. 2012.
- [33] B. N. P. B. Badan Nasional Penanggulangan Bencana, “Peringatan Dini Bencana,” Peringatan Dini Bencana. Accessed: Jan. 30, 2023. [Online]. Available: <https://bnpb.go.id/peringatan-dini-bencana>
- [34] A. D. Smith, “Perception and Belief,” no. Philosophy and Phenomenological Research, pp. 283–309, May 2007, doi: <https://doi.org/10.1111/j.1933-1592.2001.tb00057.x>.
- [35] Robbins, S. P., and A. Judge, *Perilaku organisasi*. Jakarta: PT. Indeks Kelompok Gramedia, 2006.
- [36] B. Fauzi and Prisalika, “Dalam Jurnal dan Literatur Gambaran Persepsi,” 2009.

- [37] Koentjaraningrat, *Pengantar Ilmu Antropologi*. Jakarta: Rineka Cipta, 2009.
- [38] A. Ahmadi, *Ilmu Sosial Dasar*. Jakarta: PT Rineka Cipta, 2003.
- [39] S. Soekanto, *Pengantar penelitian hukum*. Universitas Indonesia Press, 2006.
- [40] A. Sabir, "GAMBARAN UMUM PERSEPSI MASYARAKAT TERHADAP BENCANA DI INDONESIA," *Jurnal Ilmu Ekonomi dan Sosial*, vol. 5, pp. 304–326, Nov. 2016.
- [41] S. Widiyantoro *et al.*, "Implications for megathrust earthquakes and tsunamis from seismic gaps south of Java Indonesia," *Sci. Rep.*, vol. 10, no. 1, p. 15274, Sept. 2020, doi: 10.1038/s41598-020-72142-z.
- [42] Danardono, A. A. Wibowo, D. N. Sari, K. D. Priyono, and E. S. M. Dewi, "TSUNAMI HAZARD MAPPING BASED ON COASTAL SYSTEM ANALYSIS USING HIGH-RESOLUTION UNMANNED AERIAL VEHICLE (UAV) IMAGERY (Case Study in Kukup Coastal Area, Gunungkidul Regency, Indonesia)," *Geogr. Tech.*, vol. 18, no. 2/2023, pp. 51–67, May 2023, doi: 10.21163/GT_2023.182.04.
- [43] F. A. T. Laksono and J. Kovács, "Application of the PTVA–4 Modeling in Assessment of Building Vulnerability to Earthquake and Tsunami: A Simple and Reliable Method for Preliminary Study of Tsunami-Prone Zones," *Acad. Perspect. Procedia*, vol. 5, no. 2, pp. 243–252, Nov. 2022, doi: 10.33793/acperpro.05.02.7324.
- [44] S. L. Y. Irawan, "Coastal Community Resilience Planning Toward Disaster: A Case Study on Coastal Area in Malang Regency, East Java, Indonesia," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 747, 2021, doi: 10.1088/1755-1315/747/1/012001.
- [45] G. M. Yugyasmono, "PERBANDINGAN NILAI KETANGGUHAN DESA PESISIR ATAS RISIKO TSUNAMI DAN FAKTOR PERUBAHAN NILAI KETANGGUHAN: STUDI ATAS DESA PARANGTRITIS DAN DESA TIRTOHARGO, KABUPATEN BANTUL," *Indones. J. Environ. Disaster*, 2023, doi: 10.20961/ijed.v2i2.882.
- [46] K. Lilik, G. Suwandi, S. Zauhar, S. Maarif, L. Indah Mindarti, and R. Yunus, "The Tsunami Resilient Village (DESTANA) Expedition 'Kibar Pataka in South Java,'" *Mod. Environ. Sci. Eng.*, p. 856, Aug. 2020, doi: 10.15341/mese(2333-2581)/08.06.2020/007.
- [47] W. Hidajat, S. Anggoro, and N. Najib, "Coastal Area Management Based on Disaster Mitigation: A Case Study in Purworejo Regency, Indonesia," *Indones. J. Geosci.*, 2021, doi: 10.17014/ijog.8.2.147-156.
- [48] V. Steinritz, S. Pena-Castellnou, G. I. Marliyani, and K. Reicherter, "GIS-based study of tsunami risk in the Special Region of Yogyakarta (Central Java, Indonesia)," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 851, no. 1, p. 012007, Oct. 2021, doi: 10.1088/1755-1315/851/1/012007.
- [49] G. Andriyani, S. Kahar, M. Awaluddin, and I. Meilano, "KAJIAN REGANGAN SELAT BALI BERDASARKAN DATA GNSS KONTINU TAHUN 2009-201," p. 12.

- [50] United State Geological Survey, “Earthquake Magnitude, Energy Release, and Shaking Intensity,” Feb. 02, 2020. [Online]. Available: https://www.usgs.gov/natural-hazards/earthquake-hazards/science/earthquake-magnitude-energy-release-and-shaking-intensity?qt-science_center_objects=0#qt-science_center_objects
- [51] H. Houston, “Deep Earthquakes,” in *Treatise on Geophysics*, Elsevier, 2015, pp. 329–354. doi: 10.1016/B978-0-444-53802-4.00079-8.
- [52] F. Huang *et al.*, “Studies on earthquake precursors in China: A review for recent 50 years,” *Geod. Geodyn.*, vol. 8, no. 1, pp. 1–12, Jan. 2017, doi: 10.1016/j.geog.2016.12.002.
- [53] A. Aiuppa *et al.*, “Forecasting Etna eruptions by real-time observation of volcanic gas composition,” *Geol. Soc. Am.*, no. Geology, pp. 1115–1118, Aug. 2007, doi: <https://doi.org/10.1130/G24149A.1>.
- [54] A. Aiuppa *et al.*, “A CO₂-gas precursor to the March 2015 Villarrica volcano eruption: CO₂-GAS PRECURSOR TO VILLARRICA ERUPTION,” *Geochem. Geophys. Geosystems*, vol. 18, no. 6, pp. 2120–2132, June 2017, doi: 10.1002/2017GC006892.
- [55] J. K. Otton, *The geology of radon*. Denver: US Geological Survey, 1992.
- [56] M. Belferman, R. Katsman, and A. Agnon, “Effect of large-scale surface water level fluctuations on earthquake recurrence interval under strike-slip faulting,” *Tectonophysics*, vol. 744, pp. 390–402, Oct. 2018, doi: 10.1016/j.tecto.2018.06.004.
- [57] L. Nirwani, “PENENTUAN KONSENTRASI GAS RADON DAN THORON MENGGUNAKAN DETEKTOR FILM LR-115 DI DKI DAN SEKITARNYA,” p. 10.
- [58] N. Connor, “What is Ionization Chamber – Ion Chamber – Definition.” Accessed: July 06, 2022. [Online]. Available: <https://www.radiation-dosimetry.org/what-is-ionization-chamber-ion-chamber-definition/>
- [59] Internationale Atomenergie-Organisation, *Measurement and calculation of radon releases from NORM residues*. in Technical reports series / International Atomic Energy Agency, no. 474. Vienna: Internat. Atomic Energy Agency, 2013.
- [60] H. Cember and T. E. Johnson, *Introduction to health physics*, 4th ed. New York: McGraw-Hill Medical, 2009.
- [61] J. W. PostonSr., *Encyclopedia of Physical Science and Technology*, Third Edition. Academic Press Inc, 2001.
- [62] United States Environmental Protection Agency, “Radiation: Facts, Risks and Realities,” vol. EPA-4020K-10-008, Apr. 2012.
- [63] G. Etiope and G. Martinelli, “Migration of carrier and trace gases in the geosphere: an overview,” *Phys. Earth Planet. Inter.*, vol. 129, no. 3–4, pp. 185–204, Feb. 2002, doi: 10.1016/S0031-9201(01)00292-8.
- [64] D. Ghosh, A. Deb, and R. Sengupta, “Anomalous radon emission as precursor of earthquake,” *J. Appl. Geophys.*, vol. 69, no. 2, pp. 67–81, Oct. 2009, doi: 10.1016/j.jappgeo.2009.06.001.

- [65] D. Thomas, "Geochemical precursors to seismic activity," *Pure Appl. Geophys.*, no. Query date: 2021-11-17 00:58:09, 1988, doi: 10.1007/BF00878998.
- [66] C. King, "Radon emanation on San Andreas fault," *Nature*, no. Query date: 2021-11-17 08:00:04, 1978, [Online]. Available: <https://www.nature.com/articles/271516a0>
- [67] G. Martinelli and G. Ferrari, "Earthquake forerunners in a selected area of Northern Italy: recent developments in automatic geochemical monitoring," *Tectonophysics*, no. Query date: 2021-11-17 00:58:09, 1991, [Online]. Available: <https://www.sciencedirect.com/science/article/pii/004019519190348V>
- [68] Z. X. Yin, F. Guo, and L. Wu, "Design and Implementation of a Kind of Redundant Control Computer Based on CPCI Bus," *Adv. Mater. Res.*, vol. 546–547, pp. 880–885, 2012, doi: 10.4028/www.scientific.net/AMR.546-547.880.
- [69] L. Liu, X. Chen, and D. Cao, "Research of Redundancy Management on Fight Control Computer for Unmanned Aerial Vehicle," *Adv. Mater. Res.*, vol. 383–390, pp. 1573–1577, 2012, doi: 10.4028/www.scientific.net/AMR.383-390.1573.
- [70] "Developing a New HSR Switching Node (SwitchBox) for Improving Traffic Performance in HSR Networks." Accessed: Oct. 15, 2024. [Online]. Available: <https://www.mdpi.com/1996-1073/9/1/36>
- [71] "An Effective Communication Prototype for Time-Critical IIoT Manufacturing Factories Using Zero-Loss Redundancy Protocols, Time-Sensitive Networking, and Edge-Computing in an Industry 4.0 Environment." Accessed: Oct. 15, 2024. [Online]. Available: <https://www.mdpi.com/2227-9717/9/11/2084>
- [72] H. Shao *et al.*, "Multivariate Bernoulli Logit-Normal Model for Failure Prediction," *Annu. Conf. PHM Soc.*, vol. 11, no. 1, Art. no. 1, Sept. 2019, doi: 10.36001/phmconf.2019.v11i1.879.
- [73] D. L. Alvarez, F. Faria da Silva, E. E. Mombello, C. L. Bak, J. A. Rosero, and D. L. Ólason, "An approach to dynamic line rating state estimation at thermal steady state using direct and indirect measurements," *Electr. Power Syst. Res.*, vol. 163, pp. 599–611, Oct. 2018, doi: 10.1016/j.epsr.2017.11.015.
- [74] S. Simani and S. Farsoni, "System and Fault Modeling," in *Fault Diagnosis and Sustainable Control of Wind Turbines*, Elsevier, 2018, pp. 13–41. doi: 10.1016/B978-0-12-812984-5.00002-X.
- [75] J. R. Holliday, W. J. Gaggioli, and L. E. Knox, "Testing earthquake forecasts using reliability diagrams," *Geophys. J. Int.*, vol. 188, no. 1, pp. 336–342, Jan. 2012, doi: 10.1111/j.1365-246X.2011.05274.x.
- [76] D. Schorlemmer *et al.*, "The Collaboratory for the Study of Earthquake Predictability: Achievements and Priorities," *Seismol. Res. Lett.*, vol. 89, no. 4, pp. 1305–1313, June 2018, doi: 10.1785/0220180053.
- [77] N. Genzano, C. Filizzola, M. Lisi, N. Pergola, and V. Tramutoli, "Toward the development of a multi parametric system for a short-term assessment

- of the seismic hazard in Italy,” *Ann. Geophys.*, vol. 63, no. 5, Art. no. 5, Nov. 2020, doi: 10.4401/ag-8227.
- [78] G. Falcone *et al.*, “An Operational Earthquake Forecasting Experiment for Israel: Preliminary Results,” *Front. Earth Sci.*, vol. 9, Sept. 2021, doi: 10.3389/feart.2021.729282.
- [79] Y. C A Padmanabha Reddy, P. Viswanath, and B. Eswara Reddy, “Semi-supervised learning: a brief review,” *Int. J. Eng. Technol.*, vol. 7, no. 1.8, p. 81, Feb. 2018, doi: 10.14419/ijet.v7i1.8.9977.
- [80] I. Cholissodin, Sutrisno, A. Soebroto, U. Hasanah, and Y. Febiola, “AI, MACHINE LEARNING & DEEP LEARNING,” in *AI, MACHINE LEARNING & DEEP LEARNING*, in 1.01. , Malang, Indonesia: Fakultas Ilmu Komputer, Universitas Brawijaya. [Online]. Available: <http://bit.ly/3piOnnU>
- [81] S. J. Russell and P. Norvig, *Artificial intelligence: a modern approach*, Third edition, Global edition. in Prentice Hall series in artificial intelligence. Boston Columbus Indianapolis: Pearson, 2016.
- [82] H. Li, “Which machine learning algorithm should I use?,” The SAS Data Science Blog, Deember 2020. Accessed: Nov. 22, 2022. [Online]. Available: <https://blogs.sas.com/content/subconsciousmusings/2020/12/09/machine-learning-algorithm-use/>
- [83] “Beginning Statistics,” p. 716.
- [84] Google, “Google Maps.” Accessed: Aug. 25, 2024. [Online]. Available: <https://www.google.co.id/maps>
- [85] B. P. S. Badan Pusat Statistik, “Hasil Sensus Penduduk 2020 Kabupaten Pacitan.” [Online]. Available: <https://pacitankab.bps.go.id/pressrelease/2021/01/21/114/hasil-sensus-penduduk-2020-kabupaten-pacitan.html#:~:text=Jumlah%20penduduk%20Kabupaten%20Pacitan%20pada,SP2020%20adalah%20sebanyak%20586.110%20jiwa.>
- [86] D. K. dan I. K. Kebumen. Dinas Komunikasi dan Informatika Kabupaten Kebumen., “Jumlah Penduduk per Kecamatan Kabupaten Kebumen, Jawa Tengah,” satudata.kebumenkab.go.id. Accessed: Dec. 24, 2021. [Online]. Available: https://satudata.kebumenkab.go.id/index.php/web/grafik_indikator/3/10078
- [87] G. R. and D. C. Geological Research and Development Centre, “Geological map.” Geological Research and Development Centre, 1992.
- [88] T. O. Pratama, S. Sunarno, A. B. Wijatna, and E. Haryono, “Earthquake magnitude prediction in Indonesia using a supervised method based on cloud radon data,” *Int. J. Reconfigurable Embed. Syst. IJRES*, vol. 13, no. 3, p. 577, Nov. 2024, doi: 10.11591/ijres.v13.i3.pp577-585.
- [89] M. Micucci and A. Iula, “Recent Advances in Machine Learning Applied to Ultrasound Imaging,” *Electron. Switz.*, vol. 11, no. 11, pp. 1–30, June 2022, doi: 10.3390/electronics11111800.

- [90] E. Ismanto and M. Novalia, “Komparasi Kinerja Algoritma C4.5, Random Forest, dan Gradient Boosting untuk Klasifikasi Komoditas,” *Techno.Com*, vol. 20, no. 3, pp. 400–410, Aug. 2021, doi: 10.33633/tc.v20i3.4576.
- [91] T. Zhang and B. Li, “Loan Prediction Model Based on AdaBoost and PSO-SVM,” in *Proceedings of the 2018 International Conference on Network, Communication, Computer Engineering (NCCE 2018)*, Paris, France: Atlantis Press, 2018. doi: 10.2991/ncce-18.2018.120.
- [92] C. Tu, H. Liu, and B. Xu, “AdaBoost typical Algorithm and its application research,” *MATEC Web Conf.*, vol. 139, p. 00222, Dec. 2017, doi: 10.1051/mateconf/201713900222.
- [93] A. Arista, “Comparison Decision Tree and Logistic Regression Machine Learning Classification Algorithms to determine COVID-19,” *Sinkron*, vol. 7, no. 1, pp. 59–65, Jan. 2022, doi: 10.33395/sinkron.v7i1.11243.
- [94] Y. Hou, “Decision Tree Algorithm for Big Data Analysis,” *Adv. Intell. Syst. Res.*, vol. 161, pp. 1–5, 2018, doi: 10.2991/tlicsc-18.2018.43.
- [95] B. Charbuty and A. Abdulazeez, “Classification Based on Decision Tree Algorithm for Machine Learning,” *J. Appl. Sci. Technol. Trends*, vol. 2, no. 1, pp. 20–28, Mar. 2021, doi: 10.38094/jastt20165.
- [96] Y. Zhang and A. Haghani, “A gradient boosting method to improve travel time prediction,” *Transp. Res. Part C Emerg. Technol.*, vol. 58, pp. 308–324, Sept. 2015, doi: 10.1016/j.trc.2015.02.019.
- [97] T. O. Pratama, S. Sunarno, A. B. Wijatna, and E. Haryono, “Earthquake magnitude prediction in Indonesia using a supervised method based on cloud radon data,” *Int. J. Reconfigurable Embed. Syst. IJRES*, vol. 13, no. 3, p. 577, Nov. 2024, doi: 10.11591/ijres.v13.i3.pp577-585.
- [98] M. S. Hossain, A. Al Hasan, S. Guha, and K. Andersson, “A belief rule based expert system to predict earthquake under uncertainty,” *J. Wirel. Mob. Netw. Ubiquitous Comput. Dependable Appl.*, vol. 9, no. 2, pp. 26–41, 2018.
- [99] R. Tehseen, M. S. Farooq, and A. Abid, “Earthquake prediction using expert systems: A systematic mapping study,” *Sustainability*, vol. 12, no. 6, Mar. 2020, doi: 10.3390/su12062420.
- [100] A. Ikram and U. Qamar, “Developing an expert system based on association rules and predicate logic for earthquake prediction,” *Knowl.-Based Syst.*, vol. 75, pp. 87–103, Feb. 2015, doi: 10.1016/j.knosys.2014.11.024.
- [101] P. Hajikhodaverdikhan, M. Nazari, M. Mohsenizadeh, S. Shamshirband, and K. Chau, “Earthquake prediction with meteorological data by particle filter-based support vector regression,” *Eng. Appl. Comput. Fluid Mech.*, vol. 12, no. 1, pp. 679–688, Jan. 2018, doi: 10.1080/19942060.2018.1512010.
- [102] K. M. Asim, F. Martínez-Álvarez, A. Basit, and T. Iqbal, “Earthquake magnitude prediction in Hindukush region using machine learning techniques,” *Nat. Hazards*, vol. 85, no. 1, pp. 471–486, Jan. 2017, doi: 10.1007/s11069-016-2579-3.
- [103] G. Asencio-Cortés, A. Morales-Esteban, X. Shang, and F. Martínez-Álvarez, “Earthquake prediction in California using regression algorithms

- and cloud-based big data infrastructure,” *Comput. Geosci.*, vol. 115, pp. 198–210, June 2018, doi: 10.1016/j.cageo.2017.10.011.
- [104] J. Mahmoudi, M. A. Arjomand, M. Rezaei, and M. H. Mohammadi, “Predicting the earthquake magnitude using the multilayer perceptron neural network with two hidden layers,” *Civ. Eng. J.*, vol. 2, no. 1, pp. 1–12, Jan. 2016, doi: 10.28991/cej-2016-000000008.
- [105] M. Moustra, M. Avraamides, and C. Christodoulou, “Artificial neural networks for earthquake prediction using time series magnitude data or Seismic Electric Signals,” *Expert Syst. Appl.*, vol. 38, no. 12, pp. 15032–15039, Nov. 2011, doi: 10.1016/j.eswa.2011.05.043.
- [106] M. Mirrashid, “Earthquake magnitude prediction by adaptive neuro-fuzzy inference system (ANFIS) based on fuzzy C-means algorithm,” *Nat. Hazards*, vol. 74, no. 3, pp. 1577–1593, Dec. 2014, doi: 10.1007/s11069-014-1264-7.
- [107] H. Adeli and A. Panakkat, “A probabilistic neural network for earthquake magnitude prediction,” *Neural Netw.*, vol. 22, no. 7, pp. 1018–1024, Sept. 2009, doi: 10.1016/j.neunet.2009.05.003.
- [108] J. Huang, X. Wang, Y. Zhao, C. Xin, and H. Xiang, “Large earthquake magnitude prediction in taiwan based on deep learning neural network,” *Neural Netw. World*, vol. 28, no. 2, pp. 149–160, 2018, doi: 10.14311/NNW.2018.28.009.
- [109] M. Fernández-Gómez, G. Asencio-Cortés, A. Troncoso, and F. Martínez-Álvarez, “Large earthquake magnitude prediction in chile with imbalanced classifiers and ensemble learning,” *Appl. Sci.*, vol. 7, no. 6, June 2017, doi: 10.3390/app7060625.
- [110] I. M. Murwantara, P. Yugopuspito, and R. Hermawan, “Comparison of machine learning performance for earthquake prediction in Indonesia using 30 years historical data,” *TELKOMNIKA Telecommun. Comput. Electron. Control*, vol. 18, no. 3, pp. 1331–1342, June 2020, doi: 10.12928/telkomnika.v18i3.14756.
- [111] H. Öncel Çekim, H. N. Karakavak, G. Özel, and S. Tekin, “Earthquake magnitude prediction in Turkey: a comparative study of deep learning methods, ARIMA and singular spectrum analysis,” *Environ. Earth Sci.*, vol. 82, no. 16, Aug. 2023, doi: 10.1007/s12665-023-11072-1.
- [112] B. Sadhukhan, S. Chakraborty, S. Mukherjee, and R. K. Samanta, “Climatic and seismic data-driven deep learning model for earthquake magnitude prediction,” *Front. Earth Sci.*, vol. 11, Feb. 2023, doi: 10.3389/feart.2023.1082832.
- [113] S. Sawant et al., “Earthquake prognosis using machine learning,” *ITM Web Conf.*, vol. 56, Aug. 2023, doi: 10.1051/itmconf/20235605017.
- [114] C. D. Trong et al., “Using geomorphological indicators to predict earthquake magnitude (M_{Ob}–M_{Max}): A case study from cao bang province and adjacent areas (Vietnam),” *Geotectonics*, vol. 56, no. 3, pp. 321–338, June 2022, doi: 10.1134/S0016852122030104.

- [115] J. Zhang and X. He, "Earthquake magnitude prediction using a VMD-BP neural network model," *Nat. Hazards*, vol. 117, no. 1, pp. 189–205, May 2023, doi: 10.1007/s11069-023-05856-8.
- [116] W. Zhou, H. Dong, and Y. Liang, "The deterministic dendritic cell algorithm with Haskell in earthquake magnitude prediction," *Earth Sci. Inform.*, vol. 13, no. 2, pp. 447–457, June 2020, doi: 10.1007/s12145-020-00442-z.
- [117] M. Yousefzadeh, S. A. Hosseini, and M. Farnaghi, "Spatiotemporally explicit earthquake prediction using deep neural network," *Soil Dyn. Earthq. Eng.*, vol. 144, May 2021, doi: 10.1016/j.soildyn.2021.106663.
- [118] R. Yuan, "An improved K-means clustering algorithm for global earthquake catalogs and earthquake magnitude prediction," *J. Seismol.*, vol. 25, no. 3, pp. 1005–1020, June 2021, doi: 10.1007/s10950-021-09999-8.
- [119] S. Biswas, D. Kumar, and U. K. Bera, "Prediction of earthquake magnitude and seismic vulnerability mapping using artificial intelligence techniques: a case study of Turkey," May 08, 2023. doi: 10.21203/rs.3.rs-2863887/v1.
- [120] W. H. Al Yamani, M. Bisharah, H. H. Alumany, and N. A. Al Mohammadin, "Machine learning in seismic structural design: an exploration of ANN and tabu-search optimization," *Asian J. Civ. Eng.*, vol. 25, no. 3, pp. 2367–2377, Apr. 2024, doi: 10.1007/s42107-023-00913-w.
- [121] Z. Bao, J. Zhao, P. Huang, S. Yong, and X. Wang, "A deep learning-based electromagnetic signal for earthquake magnitude prediction," *Sensors*, vol. 21, no. 13, June 2021, doi: 10.3390/s21134434.
- [122] D. Du and Z. Cui, "An evolutionary model for earthquake prediction considering time-series evolution and feature extraction and its application," *J. Phys. Conf. Ser.*, vol. 2333, no. 1, Aug. 2022, doi: 10.1088/1742-6596/2333/1/012013.
- [123] M. Nafizul Islam, M. A. Sufian Khan, M. Bin Munir, M. A. Kalam Azad, and T. Mustafy, "Seismic indicators-based earthquake magnitude prediction for Bangladesh using machine learning algorithms," in *Proceedings of the 5rd International Conference on Civil Structural and Transportation Engineering (ICCSTE'20)*, Nov. 2020, pp. 329-1-329-2. doi: 10.11159/iccste20.329.
- [124] T. O. Pratama, S. Sunarno, A. B. Wijatna, and E. Haryono, "Cloud radon data for earthquake magnitude prediction using machine learning," *IAES Int. J. Artif. Intell. IJ-AI*, vol. 13, no. 4, pp. 4572–4582, Dec. 2024, doi: 10.11591/ijai.v13.i4.pp4572-4582.
- [125] S. Sunarno *et al.*, "Earthquake magnitude prediction based on radon cloud data near Grindulu fault, Indonesia using the statistical method," *TELKOMNIKA Telecommun. Comput. Electron. Control*, vol. 23, pp. 825–836, doi: 10.12928/TELKOMNIKA.v23i3.26494.
- [126] H. Rodríguez, W. Donner, and J. E. Trainor, Eds., *Handbook of Disaster Research*. in Handbooks of Sociology and Social Research. Cham: Springer International Publishing, 2018. doi: 10.1007/978-3-319-63254-4.

- [127] S. Abe, M. Ozawa, and Y. Kawata, Eds., *Science of Societal Safety: Living at Times of Risks and Disasters*, vol. 2. in Trust, vol. 2. Singapore: Springer Singapore, 2019. doi: 10.1007/978-981-13-2775-9.