

DAFTAR PUSTAKA

- [1] J. B. Stinnett, Automated Isotope Identification Algorithms for Low-Resolution Gamma Spectrometers (Dissertation), Urbana: University of Illinois, 2016.
- [2] R. T. Kouzes, "Detecting Illicit Nuclear Materials," *American Scientist*, vol. 93, no. 5, pp. 422-427, 2005.
- [3] K. E. Nelson, T. B. Gosnell dan D. A. Knapp, "The effect of energy resolution on the extraction of information content from gamma-ray spectra," *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, vol. 659, no. 1, pp. 207-214, 2011.
- [4] H. El-Gamal, H. Negm dan M. Hasabelnaby, "Detection efficiency of NaI(Tl) detector based on the fabricated calibration of HPGe detector," *Journal of Radiation Research and Applied Sciences*, vol. 12, no. 1, pp. 360-366, 2019.
- [5] L. Marques, A. Vale dan P. Vaz, "State-of-the-Art Mobile Radiation Detection Systems for Different Scenarios," *Sensors*, vol. 21, no. 1051, 2021.
- [6] C. Yuan, "Research on the Identification Method of Radionuclide Based on the Lightweight Model," *Journal of Physics: Conference Series*, vol. 2562, no. 2023, pp. 1-6, 2023.
- [7] A. Khatiwada, M. Klasky, M. Lombardi, J. Matheny dan A. Mohan, "Machine Learning technique for isotopic determination of radioisotopes using HPGe γ -ray spectra," *arXiv*, 2023.
- [8] M. Kamuda dan J. Z. K. Huff, "A Comparison of Machine Learning Methods for Automated Gamma-Ray Spectroscopy," *Nuclear Instruments and Methods in Physics Research*, vol. 954, no. 161385, 2020.
- [9] J. Wu, X. Chen, H. Zhang, L. Xiong, H. Lei dan S. Deng, "Hyperparameter Optimization for Machine Learning Models Based on Bayesian Optimization," *Journal of Electronic Science and Technology*, vol. 17, no. 1, pp. 26-40, 2019.
- [10] T. A. E. Putri, T. Widiharah dan R. Santoso, "PENERAPAN TUNING HYPERPARAMETER RANDOMSEARCHCV PADA ADAPTIVE BOOSTING UNTUK PREDIKSI KELANGSUNGAN HIDUP PASIEN



GAGAL JANTUNG,” *JURNAL GAUSSIAN*, vol. 11, no. 3, pp. 397-406, 2022.

- [11] H. Saleh, S. F. A. Ghany, H. Alyami dan W. Alosaimi, “Predicting Breast Cancer Based on Optimized Deep Learning Approach,” *Computational Intelligence and Neuroscience*, vol. 2022, pp. 1-11, 2022.
- [12] N. Tsoulfanidis, *Measurement and Detection of Radiation*, Washington, DC: Taylor & Francis, 1995.
- [13] G. F. Knoll, *Radiation Detection and Measurement 4th Edition*, Hoboken: John Wiley & Sons, 2010.
- [14] A. Cahyono, J. Triyanto dan D. Handoyo, “Desain Dasar Portal Monitor Radiasi untuk Kendaraan,” *PRIMA*, vol. 11, no. 1, pp. 32-43, 2014.
- [15] J. Sumanto, S. Bachtiar dan A. Jalil, “Kajian Kinerja Sistem Deteksi antara Detektor NaI(tL) dan CsI(Tl) untuk Perangkat Renograf Portabel Jinjing,” *PRIMA*, vol. 8, no. 2, pp. 63-72, 2011.
- [16] W. Scharf dan W. Lisieski, *Amplitude Distribution Spectrometers*, Amsterdam: Elsevier, 1980.
- [17] P. M. Raja dan A. R. Barron, *Physical Methods in Chemistry and Nano Science*, Davis: LibreTexts, 2024.
- [18] J. L. R. J. d. M. P. H. G. M. Hendriks, “Full-spectrum analysis of natural γ -ray spectra,” *Journal of Environmental Radioactivity*, vol. 53, p. 365–380, 2001.
- [19] Noviarty, I. Haryati dan S. Nisa, “ANALISIS RADIONUKLIDA DALAM BATUAN MENGGUNAKAN SPEKTROMETER GAMMA,” *ISSN*, vol. 19, pp. 37-46, 2017.
- [20] G. Gilmore, *Practical Gamma-ray Spectrometry 2nd Edition*, New York: John Wiley & Sons, 2017.
- [21] R. Seymour, M. Andreaco dan J. Jierce, “Evaluation of Energy Efficiency Fitting Functions for HPGe Detectors,” *Journal of Radioanalytical and Nuclear Chemistry*, vol. 123, no. 2, pp. 529-550, 1988.
- [22] N. Kurniawan, A. Setiawanto dan P. Ramadania, “PERHITUNGAN NILAI EFISIENSI PENCACAHAN HAMPIRAN UNTUK DETEKTOR HPGe PADA SPEKTROMETER GAMMA MENGGUNAKAN METODE



KUADRAT TERKECIL,” *Buletin Pengelolaan Reaktor Nuklir*, vol. 17, no. 1, pp. 1-13, 2020.

- [23] M. F. Kuluöztürk, “Optimization of 3×3 inch NaI(Tl) detector related to energy, distance and bias voltage,” *Journal of Radiation and Applied Sciences*, vol. 16, no. 3, 2023.
- [24] R. Casanovas, M. Salvadó dan J. J. Morant, “Development and Calibration of a Real-Time Airborne Radioactivity Monitor Using Gamma-Ray Spectrometry on a Particulate Filter,” *IEEE Transactions on Nuclear Sciences*, 2014.
- [25] S. Shalev-Shwartz dan S. Ben-David, *Understanding Machine Learning: From theory to Algorithms*, Cambridge: Cambridge University Press, 2014.
- [26] P. C. Sen dan M. H. M. Ghosh, “Supervised Classification Algorithms in Machine Learning: A Survey and Review,” *Emerging Technology in Modelling and Graphics. Advances in Intelligent Systems and Computing*, vol. 937, pp. 99-111, 2020.
- [27] I. H. Sarker, “Deep Learning: A Comprehensive Overview on Techniques, Taxonomy, Applications and Research Directions,” *SN Comput Sci.*, vol. 420, no. 6, 2021.
- [28] R. Qamar dan B. A. Zardari, “Artificial Neural Networks: An Overview,” *Mesopotamian Journal of Computer Science*, vol. 2023, pp. 124-133, 2023.
- [29] A. Shrestha dan A. Mahmood, “Review of Deep Learning Algorithms and Architectures,” *IEEE Access*, vol. 7, pp. 40-65, 2019.
- [30] H. Okut, *Deep Learning: Long Short-Term Memory*, London: IntechOpen, 2021.
- [31] Colah, “GitHub,” GitHub Inc., 27 8 2015. [Online]. Available: <http://colah.github.io/posts/2015-08-Understanding-LSTMs/>. [Diakses 21 5 2024].
- [32] F. Hutter, L. Kotthof dan J. Vanschoren, *Automated Machine Learning: Methods, Systems, Challenges*, Berlin: Springer, 2019.
- [33] L. Yang dan A. Shami, “On hyperparameter optimization of machine learning algorithms: Theory and practice,” *Neurocomputing*, vol. 415, no. 2020, pp. 295-316, 2020.



- [34] J. Brownlee, *Better Deep Learning: Train Faster, Reduce Overfitting, and Make Better Predictions, Machine Learning Mastery*, 2019.
- [35] P. Ayuningtyas dan H. Tantyoko, “Perbandingan Metode Word2vec Model Skipgram pada Ulasan Aplikasi Linkaja menggunakan Algoritma Bidirectional LSTM dan Support Vector Machine,” *Jurnal Sistem dan Teknologi Informasi*, vol. 12, no. 1, pp. 189-196, 2024.
- [36] J. Demšar, “Statistical comparisons of classifiers over multiple data sets,” *Journal of Machine Learning Research*, vol. 7, pp. 1-30, 2006.
- [37] S. Raschka, “Model evaluation, model selection, and algorithm selection in machine learning,” *arXiv*, 2018.
- [38] G. Santafe, I. Inza dan J. A. Lozano, “Dealing with the evaluation of supervised classification algorithms,” *Artificial Intelligent Review*, vol. 44, pp. 467-508, 2015.
- [39] O. Rainio, J. Teuho dan R. Klen, “Evaluation metrics and statistical tests for machine learning,” *Scientific Reports*, vol. 14, no. 6086, 2024.
- [40] S. Halder dan S. Ozdemir, *Hands-On Machine Learning for Cybersecurity*, Birmingham: Packt Publishing, 2018.
- [41] M. Z. Naser dan A. H. Alavi, “Error Metrics and Performance Fitness Indicators for Artificial Intelligence and Machine Learning in Engineering and Sciences,” *Architecture Structure and Construction*, 2021.
- [42] C3 AI, “C3 AI,” [Online]. Available: <https://c3.ai/glossary/data-science/mean-absolute-percent-error/>. [Diakses 20 5 2024].
- [43] E. J. Bjerrum, M. Glahder dan T. Skov, “Data Augmentation of Spectral Data for Convolutional Neural Network (CNN) Based Deep Chemometrics,” *ArXiv*, 2017.
- [44] V. E. Widatama, “Identifikasi Radioisotop pada Spektroskopi Gamma menggunakan Jaringan Syaraf Tiruan dan Keras Tuner,” 2022.
- [45] P. Z. Peebles, *Probability, Random Variables, and Random Signal Principles* 2nd Edition, New York: McGraw-Hill, 1987.
- [46] T. Henderi, Wahyuningsih dan E. Rahwanto, “Comparison of Min-Max Normalization and Z-Score Normalization in the K-nearest neighbor (kNN) Algorithm to Test the Accuracy of Types of Breast Cancer,” *Illinois Integrated Justice Information System*, vol. 4, no. 1, pp. 13-20, 2021.



- [47] Google, “Google Developers,” Google, [Online]. Available: <https://developers.google.com/machine-learning/data-prep/transform/normalization>. [Diakses 26 Juni 2024].
- [48] W. Yao, L. Zhiming, W. Yaping dan O. Chunping, “Energy spectrum nuclide recognition method based on long short-term memory neural network,” *HIGH POWER LASER AND PARTICLE BEAMS*, vol. 32, no. 10, 2020.
- [49] S. Marrone, C. Papa dan C. Sansone, “Effects of hidden layer sizing on CNN fine-tuning,” *Future Generation Computer System*, vol. 118, pp. 48-55, 2021.
- [50] R. L. Abduljabbar, H. Dia dan P.-W. Tsai, “Unidirectional and Bidirectional LSTM Models for Short-Term Traffic Prediction,” *Journal of Advanced Transportation*, vol. 2021, pp. 1-16, 2021.
- [51] L. Alawneh, B. Mohsen, M. Al-Zinati, A. Shatnawi dan M. Al-Ayyoub, “A Comparison of Unidirectional and Bidirectional LSTM Networks for Human Activity Recognition,” dalam *2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)*, Austin, 2020.
- [52] D. A. Swanson, “On the Relationship among Values of the Same Summary Measure of Error when it is used across Multiple Characteristics at the Same Point in Time: An Examination of MALPE and MAPE,” *Review of Economics & Finance*, vol. 5, no. 1, 2015.
- [53] C. Kasemset, N. Sae-Haew dan A. Sopadang, “Multiple Regression Model for Forecasting Quantity of Supply of Off-season Longan,” *Chiang Mai University Journal of Natural Sciences*, vol. 13, no. 3, pp. 391-402, 2014.
- [54] Y. Vanderheyden, K. Broeckhoven dan G. Desmet, “Peak deconvolution to correctly assess the band broadening of chromatographic columns,” *Journal of Chromatography A*, vol. 1465, pp. 126-142, 2016.
- [55] S. Uddin dan H. Lu, “Dataset meta-level and statistical features affect machine learning performance,” *Scientific Reports*, vol. 14, no. 1670, 2024.
- [56] T. Yamada dan N. Takano, “Doublet peak area determination in NaI(Tl) scintillation spectrometry using maximum likelihood estimation,” *Applied Radiation and Isotopes*, vol. 87, pp. 407-409, 2014.
- [57] TA Instruments, “TA Instruments,” [Online]. Available: www.tainstruments.com. [Diakses 4 Juli 2024].

