

DAFTAR PUSTAKA

- [1] Direktorat Jendral EBTKE, “Dirjen EBTKE Paparkan Pemenuhan Kebutuhan Listrik Indonesia Melalui Pemanfaatan EBT,” D. J. EBTKE Kementerian ESDM, 20 Januari 2023. [Online]. Available: [https://ebtke.esdm.go.id/post/2023/01/20/3405/dirjen.ebtke.paparkan.pemenuhan.kebutuhan.listrik.indonesia.melalui.pemanfaatan.ebt#:~:text=%E2%80%9CPada%20tahun%202022%2C%20kebutuhan%20listrik,energi%20baru%20terbarukan%20\(EBT\)..](https://ebtke.esdm.go.id/post/2023/01/20/3405/dirjen.ebtke.paparkan.pemenuhan.kebutuhan.listrik.indonesia.melalui.pemanfaatan.ebt#:~:text=%E2%80%9CPada%20tahun%202022%2C%20kebutuhan%20listrik,energi%20baru%20terbarukan%20(EBT)..) [Diakses 24 Mei 2023].
- [2] A. Ahdiat, “Ini Pertumbuhan Kapasitas Pembangkit Listrik Indonesia sampai 2022,” Databoks, 2023.
- [3] H. Abbas, Jamaluddin, M. Arif dan Amiruddin, “Analisa Pembangkit Tenaga Listrik dengan Tenaga Uap di PLTU,” *ILTEK*, vol. 14, no. 01, pp. 2024-2028, 2019.
- [4] B. Everett, G. Boyle, S. Peake dan J. Ramage, “Coal,” dalam *Energy Systems and Sustainability*, 2nd penyunt., Oxford, Oxford, 2013, pp. 166-169.
- [5] M. Vasi, Usha Die Casting Industries, 20 April 2020. [Online]. Available: <https://blowerfab.com/2020/04/20/centrifugal-fans-used-in-power-plant/#:~:text=Primary%20air%20fans%20or%20PA,and%20handle%20relatively%20clean%20air..> [Diakses 24 Mei 2023].
- [6] PT. Makmur Sejahtera Wisesa, Buku Panduan Operasi Boiler, Tabalong, 1017.
- [7] B. Zhang, G. Georgoulas, M. E. Orchard dan A. Saxena, “Rolling Element Bearing Feature Extraction and Anomaly Detection Based on Vibration Monitoring,” dalam *16th Mediterranean Conference on Control and Automation*, Ajaccio, France, 2008.
- [8] X. Zhao, L. Zhang, Y. Cao, K. Jin dan Y. Hou, “Anomaly Detection Approach in Industrial Control Systems Based on Measurement Data,” *Information*, vol. 13, no. 10, pp. 450-462, 2022.
- [9] C. N. Deac, G. C. Deac, R. C. Parpala, C. L. Popa dan C. E. Cotet, “Vibration Anomaly Detection using Deep Neural Network and Convolutional Neural Network,” *International Journal of Modeling and Optimization*, pp. 19-28, Feb 2021.



- [10] Z. Zhong, Y. Zhao, A. Yang, H. Zhang, D. Qiao dan Z. Zhang, “Industrial Robot Vibration Anomaly Detection Based on Sliding Window One-Dimensional Convolution Autoencoder,” *Shock and Vibration*, vol. 2022, pp. 1-13, Juni 2022.
- [11] J. S. Do, A. B. Kareem dan J.-W. Hur, “LSTM-Autoencoder for Vibration Anomaly Detection in Vertical Carousel Storage and Retrieval System (VCSRS),” *Sensors*, vol. 23, no. 02, p. 1009, 1012.
- [12] D. Hu, C. Zhang, T. Yang dan G. Chen, “An Intelligent Anomaly Detection Method for Rotating Machinery Based on Vibration Vectors,” *IEEE Sensors Journal*, vol. 22, no. 14, pp. 14294-14305, 15 Juli 2022.
- [13] T. Hasegawa, J. Ogata, M. Murakawa, T. Kobayashi dan T. Ogawa, “Adaptive training of vibration-based anomaly detector for wind turbine condition monitoring,” *International Journal of Prognostics and Health Management*, vol. 8, no. 2, 16 November 2020.
- [14] K. Vos, Z. Peng, C. Jenkins, M. R. Shahriar, P. Borghesani dan W. Wang, “Vibration-based anomaly detection using LSTM/SVM approaches,” *Mechanical Systems and Signal Processing*, vol. 169, p. 108752, 2022.
- [15] Q. Meng dan S. Zhu, “Anomaly detection for construction vibration signals using unsupervised deep learning and cloud computing,” *Advanced Engineering Informatics*, vol. 55, p. 101907, 2023.
- [16] W. Li, Z. Shang, J. Zhang, M. Gao dan S. Qian, “A novel unsupervised anomaly detection method for rotating machinery based on memory augmented temporal convolutional autoencoder,” *Engineering Applications of Artificial Intelligence*, vol. 123B, p. 106312, 2023.
- [17] P. Han, A. L. Ellefsen, G. Li, F. T. Holmeset dan H. Zhang, “Fault Detection with LSTM-based Variational Autoencoder for Maritime Components,” *IEEE Sensors Journal*, vol. 21, no. 19, pp. 21903-21912, 2021.
- [18] A. Ohji dan M. Haraguchi, “Steam turbine cycles and cycle design optimization: the Rankine cycle, thermal power cycles, and integrated gasification-combined cycle power plants,” dalam *Advances in Steam Turbines for Modern Power Plants*, 2nd penyunt., T. Tanuma, Penyunt., Cambridge, Massachusetts: Woodhead Publishing, 2022, pp. 11-40.
- [19] M. Mustangin, S. H, F. M. dan R. Sukmawan, *TURBIN UAP : Prinsip, Start-Up, Perawatan, Penunjangnya*, Yogyakarta: LPP Press, 2018.



- [20] H. M. G. Muller-Steinhagen, “Rankine Cycle,” dalam *A-to-Z Guide to Thermodynamics, Heat and Mass Transfer, and Fluids Engineering*, Thermopedia, 2011.
- [21] D. K. Sarkar, *Thermal Power Plant: Design and Operation*, Amsterdam: Elsevier, 2015.
- [22] M. S. Akbar, F. Suryadi dan D. D. Prastyo, “Kinerja Economizer pada Boiler,” *Jurnal Teknik Industri*, vol. 11, no. 1, pp. 72-81, 2009.
- [23] M. Ebrahimi, *Power Generation Technologies: Foundation, Design, and Advances*, London: Academic Press, 2023.
- [24] S. Basu dan A. K. Debnath, *Power Plant Instrumentation and Control Handbook*, 2nd penyunt., London: Academic Press, 2019.
- [25] K. Rayaprolu, *Boiler for Power and Process*, Boca Raton, Florida: CRC Press, 2009.
- [26] S. Teir, “Modern Boiler Types and Application,” dalam *Steam Boiler Technology*, Helsinki, 2002.
- [27] S. A. Mahir, *Boiler: A Comprehensive Guide to Boiler Systems*, 2023.
- [28] A. R. Mallick, *Practical Boiler Operation Engineering and Power Plant*, 4th penyunt., Delhi: PHI Learning Private Limited, 2015.
- [29] R. Wohlfarth dan A. L. Kohan, *Boiler Operator's Guide*, 5th penyunt., New York: McGraw Hill, 2021.
- [30] C. E. Baukal, M. Vaccari dan M. G. Claxton, “Burners for reformers and cracking furnaces,” dalam *Computer Aided Chemical Engineering*, Amsterdam, Elsevier, 2019, pp. 937-984.
- [31] N. Wang, Y. Liang dan L. Wang, “On-line Monitoring Method of Bearing in Rotating Machinery Based on Wireless Sensor Networks,” dalam *The 2017 3rd International Forum on Energy, Environment Science and Materials (IFEESM 2017)*, 2018.
- [32] P. C. Mishra dan H. Rahnejat, “Tribology of Big-End Bearings,” dalam *Tribology and Dynamics of Enginer and Powertrain*, Woodhead Publishing.
- [33] R. McGillivray, “An Overview of Thrust Bearings,” Tameson, 15 Januari 2022. [Online]. Available: <https://tameson.com/pages/thrust-bearings>. [Diakses 7 September 2023].



- [34] S. Alla dan S. K. Adari, *Beginning Anomaly Detection Using Python-Based Deep Learning: With Keras and PyTorch*, New York: Apress, 2019.
- [35] V. Pappakrishnan, "Types of Data Anomalies," *Data Daily Reads*, 30 Juni 2022. [Online]. Available: <https://medium.com/datadailyread/types-of-data-anomalies-2f6fb1747eb1>. [Diakses 4 Agustus 2023].
- [36] "What is Deep Learning," IBM, [Online]. Available: <https://www.ibm.com/topics/deep-learning>. [Accessed 14 November 2023].
- [37] S. Axena, "Introduction to Deep Learning," *Geeks for Geeks*, 1 June 2018. [Online]. Available: <https://www.geeksforgeeks.org/introduction-deep-learning/>. [Accessed 14 November 2023].
- [38] M. Rogucki, "What are characteristics of deep learning?," *TS2 Space*, 21 October 2023. [Online]. Available: <https://ts2.space/en/what-are-characteristics-of-deep-learning/>. [Accessed 14 November 2023].
- [39] I. H. Sarker, "Deep Learning: A Comprehensive Overview on Techniques, Taxonomy, Applications and Research Directions," *Sn Computer Science*, vol. 2, no. 6, p. 420, 2021.
- [40] I. B. Djordjevic, "Quantum Machine Learning," in *Quantum Communication, Quantum Networks, and Quantum Sensing*, Cambridge, Academic Press, 2023, pp. 491-561.
- [41] C. C. Aggarwal, *Neural networks and deep learning: a textbook*, Cham, Switzerland: Springer, 2018.
- [42] M. Saeed, "An Introduction to Recurrent Neural Networks and the Math That Powers Them," *Attention*, 9 September 2022. [Online]. Available: <https://machinelearningmastery.com/an-introduction-to-recurrent-neural-networks-and-the-math-that-powers-them/>. [Diakses 15 Agustus 2023].
- [43] W. Cochran, J. Cooley, D. Favin, H. Helms, R. Kaenel, W. Lang, G. Maling, D. Nelson, C. Rader and P. Welch, "What is the fast Fourier transform?," in *IEEE*, 1967.
- [44] N. Rastogi, "Variational Recurrent Neural Networks — VRNNs," *AIGuys*, 23 Maret 2022. [Online]. Available: <https://medium.com/aiguys/variational-recurrent-neural-networks-vrnn-3b836adad399>. [Accessed 19 November 2023].
- [45] M.-N. Tran, T.-N. Nguyen dan H. V. Dao, "A practical tutorial on Variational Bayes," *Sydney*, 2020.



- [46] D. P. Kingma and M. Welling, "An Introduction to Variational Autoencoders," *Foundations and Trends® in Machine Learning*, vol. 12, no. 4, pp. 307-392, 2019.
- [47] J. Rocca, "Understanding Variational Autoencoders (VAEs)," Towards Data Science, 21 Maret 2021. [Online]. Available: <https://towardsdatascience.com/understanding-variational-autoencoders-vaes-f70510919f73>.
- [48] E. M. Fisher, "Formulation of the Variational Autoencoder and Evidence Lower Bound and an Application to the MNIST Dataset," University of California Los Angeles, Los Angeles.
- [49] J. Han, M. Kamber dan J. Pei, *Data Mining: Concepts and Techniques*, 3rd penyunt., Burlington, Massachusetts: Morgan Kaufmann Publishers, 2011.
- [50] A. Sherstinsky, "Fundamentals of Recurrent Neural Network (RNN) and Long Short-Term Memory (LSTM) Network," *Physica D: Nonlinear Phenomena*, vol. 404, 2020.
- [51] A. Warya, "Introduction to Recurrent Neural Network," Geeks for Geeks, 18 Mei 2023. [Online]. Available: <https://www.geeksforgeeks.org/introduction-to-recurrent-neural-network/>. [Diakses 15 Agustus 2023].
- [52] A. Bajaj, "Performance Metrics in Machine Learning [Complete Guide]," Neptune AI, 21 Juli 2022. [Online]. Available: <https://neptune.ai/blog/performance-metrics-in-machine-learning-complete-guide>. [Accessed 16 November 2023].
- [53] J. Brownlee, "Regression Metrics for Machine Learning," Machine Learning Mastery, 19 Januari 2021. [Online]. Available: <https://machinelearningmastery.com/regression-metrics-for-machine-learning/>. [Accessed 16 November 2023].
- [54] N. Vandeput, "Forecast KPIs: RMSE, MAE, MAPE & Bias," Towards Data Science, 5 Juli 2019. [Online]. Available: <https://towardsdatascience.com/forecast-kpi-rmse-mae-mape-bias-cdc5703d242d>. [Diakses 9 September 2023].
- [55] C. Stedman, "data cleansing (data cleaning, data scrubbing)," TechTarget, Januari 2022. [Online]. Available: <https://www.techtarget.com/searchdatamanagement/definition/data->



scrubbing#:~:text=Data%20cleansing%2C%20also%20referred%20to,removing%20data%20to%20correct%20them.. [Diakses 4 Juli 2023].

- [56] A. Nair, “Standarization vs Normalization,” Towards Data Science, 21 Maret 2022. [Online]. Available: <https://towardsdatascience.com/standardization-vs-normalization-dc81f23085e3#:~:text=Standardization%20entails%20scaling%20data%20to,a%20standard%20deviation%20of%201.> [Diakses 4 Juli 2023].

