

DAFTAR PUSTAKA

- Abijono, H., Santoso, P., and Anggreini, N. L. (2021). Algoritma supervised learning dan unsupervised learning dalam pengolahan data. *G-Tech: Jurnal Teknologi Terapan*, 4(2):315–318.
- Ahamed, K Ishthaq, A. S. (2016). A study on neural network architectures. *Computer Engineering and Intelligent Systems*, 7(9):2222–1719.
- Aktivani, S. (2020). Uji stasioneritas data inflasi kota padang periode 2014-2019. *Statistika*, 20(2):83–90.
- Aldi, M. W. P., Jondri, J., and Aditsania, A. (2018). Analisis dan implementasi long short term memory neural network untuk prediksi harga bitcoin. *eProceedings of Engineering*, 5(2).
- Alpaydin, E. (2020). *Introduction to machine learning*. MIT press.
- Amari, S.-i. (1993). Backpropagation and stochastic gradient descent method. *Neurocomputing*, 5(4-5):185–196.
- Anggara, B. T. (2019). *Sistem Prediksi Tingkat Inflasi Provinsi Jawa Timur Menggunakan Metode Multilayer Perceptron*. PhD thesis, UNIVERSITAS ISLAM MAJAPAHIT MOJOKERTO.
- Asrul, D. A. I. and Soebroto, A. A. (2024). Optimalisasi prediksi kasus covid-19 di indonesia: Perbandingan teknik validasi 80-20 split dan walk-forward dengan arima. *J-INTECH (Journal of Information and Technology)*, 12(02):297–308.
- Azmi, U., Hadi, Z. N., and Soraya, S. (2020). Ardl method: Forecasting data curah hujan harian ntb. *Jurnal Varian*, 3(2):73–82.
- Bengio, Y. (2012). Practical recommendations for gradient-based training of deep architectures. In *Neural networks: Tricks of the trade: Second edition*, pages 437–478. Springer.
- Bian, N., Zhu, M., Chen, L., and Cai, W. (2024). Boosting mlps with a coarsening strategy for long-term time series forecasting. In *International Conference on Intelligent Computing*, pages 422–433. Springer.
- Box, G. (2013). Box and jenkins: time series analysis, forecasting and control. In *A Very British Affair: Six Britons and the Development of Time Series Analysis During the 20th Century*, pages 161–215. Springer.
- BPS (2019). Hasil survei pertanian antar sensus (sutas) 2018 provinsi jambi seri-a2. Diakses pada 17 Maret 2025.
- BPS (2024). Nilai tukar petani (ntp) provinsi jambi juni 2024 sebesar 155,21 atau naik sebesar 2,29 persen, sedangkan nilai tukar usaha rumah tangga pertanian

- (ntup) sebesar 160,70. Diakses pada 18 Maret 2025.
- BPS (2024). Pelaksanaan survei harga perdesaan (shped) bulan september 2024. Badan Pusat Statistik Kabupaten Empat Lawang.
- BPS (2025). Analisis kondisi kemiskinan provinsi jambi 2024. Diakses pada 21 Maret 2025.
- Cadenas, Erasmo, R. W. (2016). Wind speed forecasting in three different regions of mexico, using a hybrid arima-ann model. *Renewable Energy*, 35(12):2732–2738.
- Chicco, D. and Warrens, Matthijs J, J. G. (2021). The coefficient of determination r-squared is more informative than smape, mae, mape, mse and rmse in regression analysis evaluation. *Peerj computer science*, 7:e623.
- Contreras, J. and Espinola, R., N. F. C. A. (2003). Arima models to predict next-day electricity prices. *IEEE Transactions on Power Systems*, 18(3):1014–1020.
- Cryer, J. D. (2008). *Time series analysis*. Springer.
- Dare, Jayeola, P. A. O. O. D. O. (2022). Comparison of stationarity on ljung box test statistics for forecasting. *Earthline Journal of Mathematical Sciences*, 8(2):325–336.
- Dickey, D. A. (2015). Stationarity issues in time series models. *SAS Users Group International*, 30:19.
- Durbin, J. (1960). The fitting of time-series models. *Revue de l'Institut International de Statistique*, pages 233–244.
- Goodfellow, I., Bengio, Y., and Courville, A. (2016). *Deep Learning*. MIT Press. <http://www.deeplearningbook.org>.
- Hahnloser, R. H., Sarpeshkar, R., Mahowald, M. A., Douglas, R. J., and Seung, H. S. (2000). Digital selection and analogue amplification coexist in a cortex-inspired silicon circuit. *nature*, 405(6789):947–951.
- Hamedi, S. and Jahromi, H. D. (2021). Performance analysis of all-optical logical gate using artificial neural network. *Expert Systems with Applications*, 178:115029.
- Hasanah, S. T. (2012). *Pendeteksian outlier pada regresi nonlinier dengan metode statistik Likelihood Displacement (LD)*. PhD thesis, Universitas Islam Negeri Maulana Malik Ibrahim.
- Herdianto, H. (2022). Klasifikasi objek menggunakan metode convolutional neural network (cnn). *SNASTIKOM*, 1(01):330–336.
- Hussein, Bootan M, S. S. M. (2024). An empirical study on the correlation between

- early stopping patience and epochs in deep learning. In *ITM Web of Conferences*, volume 64, page 01003. EDP Sciences.
- Jian-Xin, Fang, K.-T. (2002). Maximum likelihood estimation. *Growth curve models and statistical diagnostics*, pages 77–158.
- Juanda, Bambang, J. (2012). *Ekonometrika deret waktu: teori dan aplikasi*.
- Julkarnaen, A., Purnamasari, A. I., and Ali, I. (2024). Analisis penjualan roti pada distributor my roti menggunakan metode regresi linear berdasarkan nilai rmse. *JATI (Jurnal Mahasiswa Teknik Informatika)*, 8(3):3225–3229.
- Keskar, Nitish Shirish, S.-R. (2017). Improving generalization performance by switching from adam to sgd. *arXiv preprint arXiv:1712.07628*.
- LeCun, Y., Bengio, Y., and Hinton, G. (2015). Deep learning. *nature*, 521(7553):436–444.
- Lesnussa, Yopi Andry, S.-L. J. I. M. R. (2017). Aplikasi jaringan saraf tiruan backpropagation untuk penyebaran penyakit demam berdarah dengue (dbd) di kota ambon. *Jurnal Matematika Integratif*, 13(2):63–72.
- Maria, A. (2013). *Penggunaan jaringan syaraf tiruan backpropagation untuk seleksi penerimaan mahasiswa baru pada jurusan teknik komputer di Politeknik Negeri Sriwijaya*. PhD thesis, Diponegoro University.
- Mukron, Muhammad Hali, S.-I. A. F. K. Y. N. W. F. R. A. H. M. (2021). Peramalan indeks harga konsumen indonesia menggunakan autoregressive integrated moving avarage. *Jurnal Statistika Industri Dan Komputasi*, 6(01):20–25.
- Muslim, C. (2017). Nilai tukar petani komoditas perkebunan. *SEPA: Jurnal Sosial Ekonomi Pertanian Dan Agribisnis*, 13(2):142–158.
- Peraning, Amenawati, R. (2025). *Analisis Faktor-faktor yang Mempengaruhi Nilai Tukar Petani di Sumatera Utara*. PhD thesis, Fakultas Pertanian, universitas islam sumatera utara.
- Permana, I. and Salisah, F. N. S. (2022). Pengaruh normalisasi data terhadap performa hasil klasifikasi algoritma backpropagation: The effect of data normalization on the performance of the classification results of the backpropagation algorithm. *Indonesian Journal of Informatic Research and Software Engineering (IJIRSE)*, 2(1):67–72.
- Pratiwi, Rafiqah Novi Eka, W. S. S. M. (2020). Model generalized space time autoregressive integrated moving average. *EKSPONENSIAL*, 10(2):153–160.
- Rajput, A., Thakur, A., Mukhopadhyay, A., Kamboj, S., Rastogi, A., Gautam, S., Jassal, H., and Kumar, M. (2021). Prediction of repurposed drugs for

- coronaviruses using artificial intelligence and machine learning. *Computational and structural biotechnology journal*, 19:3133–3148.
- Ramadhan, Fauzi, H. J. (2025). Evaluasi optimizer adam dan rmsprop pada arsitektur vgg-19 klasifikasi ekspresi wajah manusia. *JIPi (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)*, 10(2):1414–1426.
- Sakti, A. I., Saputra, L., Suhendra, H., Halim, N., Alviari, I., Ilham, M. R. N., Putri, M. H. N., and Dalimunthe, D. Y. (2024). Implementasi artificial neural network (ann) dalam memprediksi nilai tukar rupiah terhadap dolar amerika. *Euler: Jurnal Ilmiah Matematika, Sains dan Teknologi*, 12(2):124–130.
- Saragih, J. R., Hartama, D., and Wanto, A. (2020). Prediksi produksi susu segar di indonesia menggunakan algoritma backpropagation. *Jurnal Ilmiah Informatika*, 8(01):59–65.
- Sediyono, E., Hartomo, K. D., Arthur, C., Utami, I., Prabowo, R., and Chiong, R. (2025). An integrated framework for multi-commodity agricultural price forecasting and anomaly detection using attention-boosted models. *Journal of Agriculture and Food Research*, 22:102021.
- Setiawan, H. (2021). Peramalan nilai tukar petani di provinsi jambi. *Media Edukasi Data Ilmiah dan Analisis*, 4(01):21–29.
- Simarmata, Justin Eduardo, B. H. P. S. (2021). Application of expectation maximization algorithm in estimating parameter values of maximum likelihood model. *Journal of Research in Mathematics Trends and Technology*, 3(1):34–39.
- Sungil Kim, H. (2016). A new metric of absolute percentage error for intermittent demand forecasts. *International Journal of Forecasting*, 32(3):669–679.
- Supriyanto, P. L. P. (2017). *Peramalan Jumlah Penumpang Penerbangan di Terminal 1 Bandara Internasional Juanda Menggunakan Metode Arima Box-Jenkins dan Hybrid Autoregressive Integrated Moving Average-Artificial Neural Network (Arima-ANN)*. PhD thesis, Institut Teknologi Sepuluh Nopember.
- Tahir, N. M., Ausat, A. N., Bature, U. I., Abubakar, K. A., and Gambo, I. (2021). Off-line handwritten signature verification system: Artificial neural network approach. *International Journal of Intelligent Systems and Applications*, 10(1):45.
- Tunang, Yulin, M. T. N. N. (2019). Penerapan model vector autoregressive (var) untuk memprediksi harga cengkeh, kopra dan pala di sulawesi utara. *d\Cartesian: Jurnal Matematika dan Aplikasi*, 8(2):100–107.
- Vianita, E., Tjahjana, R. H., and Udjiani, T. (2022). Fuzzy time series orde tinggi berdasarkan rasio interval. *Jurnal Matematika UNAND*, 11(1):53–63.

- Wei, W. W. (2006). Time series univariate and multivariate methods. *Canada: Addison Wesley*.
- Widi, M. A. I. N. (2021). Determinan nilai tukar petani perkebunan rakyat di indonesia. *Efficient: Indonesian Journal of Development Economics*, 4(1):1093–1107.
- Zhang, G. P. (2003). Time series forecasting using a hybrid arima and neural network model. *Neurocomputing*, 50:159–175.
- Zivot, E., Wang, J., Zivot, E., and Wang, J. (2003). Rolling analysis of time series. *Modeling financial time series with S-Plus®*, pages 299–346.