

DAFTAR PUSTAKA

- Abiodun, O. I., Jantan, A., Omolara, A. E., Dada, K. V., Mohamed, N. A., & Arshad, H. (2018). State-of-the-art in artificial neural network applications: A survey. *Heliyon*, 4(11), e00938. <https://doi.org/10.1016/j.heliyon.2018.e00938>
- Arya, S., Mahajan, P., Gupta, R., Srivastava, R., Tailor, N. kumar, Satapathi, S., Sumathi, R. R., Datt, R., & Gupta, V. (2020). A comprehensive review on synthesis and applications of single crystal perovskite halides. *Progress in Solid State Chemistry*, 60, 100286. <https://doi.org/10.1016/j.progsolidstchem.2020.100286>
- Ayman H & Abdel-aziem. (2023, October 6). *A Multi-Layer Perceptron (MLP) Neural Networks for Stellar Classification: A Review of Methods and Results*. ResearchGate. <https://doi.org/10.54216/IJAACI.030203>
- Becker, S., & Plumbley, M. (1996). Unsupervised neural network learning procedures for feature extraction and classification. *Applied Intelligence*, 6(3), 185–203. <https://doi.org/10.1007/BF00126625>
- Bevilacqua, M., Braglia, M., & Montanari, R. (2003). The classification and regression tree approach to pump failure rate analysis. *Reliability Engineering & System Safety*, 79(1), 59–67. [https://doi.org/10.1016/S0951-8320\(02\)00180-1](https://doi.org/10.1016/S0951-8320(02)00180-1)
- Breiman, L. (2001). Random Forests. *Machine Learning*, 45(1), 5–32. <https://doi.org/10.1023/A:1010933404324>

- Breiman, L., Friedman, J., Olshen, R. A., & Stone, C. J. (1984). *Classification and Regression Trees*. Chapman and Hall/CRC.
<https://doi.org/10.1201/9781315139470>
- Buyrukoğlu, S., & Akbaş, A. (2022). Machine Learning based Early Prediction of Type 2 Diabetes: A New Hybrid Feature Selection Approach using Correlation Matrix with Heatmap and SFS. *Balkan Journal of Electrical and Computer Engineering*, 10(2), 110–117.
<https://doi.org/10.17694/bajece.973129>
- Chen, P., Li, F., & Wu, C. (2021). Research on Intrusion Detection Method Based on Pearson Correlation Coefficient Feature Selection Algorithm. *Journal of Physics: Conference Series*, 1757(1), 012054.
<https://doi.org/10.1088/1742-6596/1757/1/012054>
- Chen, W., Iyer, A., & Bostanabad, R. (2022). Data Centric Design: A New Approach to Design of Microstructural Material Systems. *Engineering*, 10, 89–98. <https://doi.org/10.1016/j.eng.2021.05.022>
- Dongare, A. D., Kharde, R. R., & Kachare, A. D. (2012). *Introduction to Artificial Neural Network*. 2(1).
- Fonti, V., & Belitser, E. (2017). *Paper in Business Analytics Feature Selection using LASSO*. <https://www.semanticscholar.org/paper/Paper-in-Business-Analytics-Feature-Selection-using-Fonti-Belitser/24acd159910658223209433cf4cbe3414264de39>
- Gao, Z., Zhang, H., Mao, G., Ren, J., Chen, Z., Wu, C., Gates, I. D., Yang, W., Ding, X., & Yao, J. (2021). Screening for lead-free inorganic double

- perovskites with suitable band gaps and high stability using combined machine learning and DFT calculation. *Applied Surface Science*, 568, 150916. <https://doi.org/10.1016/j.apsusc.2021.150916>
- Gunn, S. (1997). *Support Vector Machines for Classification and Regression*.
- Guo, Z., & Lin, B. (2021). Machine learning stability and band gap of lead-free halide double perovskite materials for perovskite solar cells. *Solar Energy*, 228, 689–699. <https://doi.org/10.1016/j.solener.2021.09.030>
- Halim, W., & Mudjihartono, P. (2022). Kecerdasan Buatan dalam Teknologi Kedokteran: Survey Paper. *KONSTELASI: Konvergensi Teknologi Dan Sistem Informasi*, 2(1), Article 1. <https://ojs.uajy.ac.id/index.php/konstelasi/article/view/5355>
- Hao, J., & Ho, T. K. (2019). Machine Learning Made Easy: A Review of Scikit-learn Package in Python Programming Language. *Journal of Educational and Behavioral Statistics*, 44(3), 348–361. <https://doi.org/10.3102/1076998619832248>
- Haq, A. ul, Ahmad, T. S., Ahmad, A., Almutairi, B. S., Amin, M., Khan, M. I., Ehsan, N., & Sharma, R. (2023). A₂LiGaI₆ (A = Cs, Rb): New lead-free and direct bandgap halide double perovskites for IR application. *Heliyon*, 9(11), e21702. <https://doi.org/10.1016/j.heliyon.2023.e21702>
- Hastie, T., Tibshirani, R., & Friedman, J. (2009). Additive Models, Trees, and Related Methods. In T. Hastie, R. Tibshirani, & J. Friedman (Eds.), *The Elements of Statistical Learning: Data Mining, Inference, and Prediction* (pp. 295–336). Springer. https://doi.org/10.1007/978-0-387-84858-7_9

- Helal Miah, M., Uddin Khandaker, M., Bulu Rahman, M., Nur-E-Alam, M., & Aminul Islam, M. (2024). Band gap tuning of perovskite solar cells for enhancing the efficiency and stability: Issues and prospects. *RSC Advances*, *14*(23), 15876–15906. <https://doi.org/10.1039/D4RA01640H>
- Hodson, T. O. (2022). Root-mean-square error (RMSE) or mean absolute error (MAE): When to use them or not. *Geoscientific Model Development*, *15*(14), 5481–5487. <https://doi.org/10.5194/gmd-15-5481-2022>
- Hutter, E. M., Gélvez-Rueda, M. C., Oshero, A., Bulović, V., Grozema, F. C., Stranks, S. D., & Savenije, T. J. (2017). Direct–indirect character of the bandgap in methylammonium lead iodide perovskite. *Nature Materials*, *16*(1), 115–120. <https://doi.org/10.1038/nmat4765>
- Im, J., Lee, S., Ko, T.-W., Kim, H. W., Hyon, Y., & Chang, H. (2019). Identifying Pb-free perovskites for solar cells by machine learning. *Npj Computational Materials*, *5*(1), 1–8. <https://doi.org/10.1038/s41524-019-0177-0>
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An Introduction to Statistical Learning* (Vol. 103). Springer New York. <https://doi.org/10.1007/978-1-4614-7138-7>
- Joseph, V. R. (2022). Optimal Ratio for Data Splitting. *Statistical Analysis and Data Mining: The ASA Data Science Journal*, *15*(4), 531–538. <https://doi.org/10.1002/sam.11583>
- Kaelbling, L. P., Littman, M. L., & Moore, A. W. (1996). Reinforcement Learning: A Survey. *Journal of Artificial Intelligence Research*, *4*, 237–285. <https://doi.org/10.1613/jair.301>

- Kecman, V. (2005). Support Vector Machines – An Introduction. In L. Wang (Ed.), *Support Vector Machines: Theory and Applications* (pp. 1–47). Springer.
https://doi.org/10.1007/10984697_1
- Li, F., Yang, Y., & Xing, E. (2005). From permut regression to Feature vector machine. *Advances in Neural Information Processing Systems*, 18.
https://proceedings.neurips.cc/paper_files/paper/2005/hash/e6cbc650cd5798a05dfd0f51d14cde5c-Abstract.html
- Liu, C., Fujita, E., Katsura, Y., Inada, Y., Ishikawa, A., Tamura, R., Kimura, K., & Yoshida, R. (2021). Machine Learning to Predict Quasicrystals from Chemical Compositions. *Advanced Materials*, 33(36), 2102507.
<https://doi.org/10.1002/adma.202102507>
- López, R., & Gómez, R. (2012). Band-gap energy estimation from diffuse reflectance measurements on sol–gel and commercial TiO₂: A comparative study. *Journal of Sol-Gel Science and Technology*, 61(1), 1–7.
<https://doi.org/10.1007/s10971-011-2582-9>
- Lorenz, S., Groß, A., & Scheffler, M. (2004). Representing high-dimensional potential-energy surfaces for reactions at surfaces by neural networks. *Chemical Physics Letters*, 395(4), 210–215.
<https://doi.org/10.1016/j.cplett.2004.07.076>
- Mahesh, B. (2020). Machine Learning Algorithms—A Review. *International Journal of Science and Research (IJSR)*, 9(1), 381–386.
<https://doi.org/10.21275/ART20203995>
- Mitchell, T. M. (1997). *Machine Learning*. McGraw-Hill.

- Morab, S., Sundaram, M. M., & Pivrikas, A. (2023). Review on Charge Carrier Transport in Inorganic and Organic Semiconductors. *Coatings*, *13*(9), Article 9. <https://doi.org/10.3390/coatings13091657>
- Natekin, A., & Knoll, A. (2013). Gradient boosting machines, a tutorial. *Frontiers in Neurorobotics*, *7*. <https://doi.org/10.3389/fnbot.2013.00021>
- Nie, P., Roccotelli, M., Fanti, M. P., Ming, Z., & Li, Z. (2021). Prediction of home energy consumption based on gradient boosting regression tree. *Energy Reports*, *7*, 1246–1255. <https://doi.org/10.1016/j.egyr.2021.02.006>
- Ohno, K., Esfarjani, K., & Kawazoe, Y. (2018). *Computational Materials Science: From Ab Initio to Monte Carlo Methods*. Springer.
- Osman Kurban, A. (2004). Analysis of shafts surface pressures using neural networks. *Industrial Lubrication and Tribology*, *56*(4), 217–225. <https://doi.org/10.1108/00368790410541561>
- Ouyang, F.-S., Guo, B.-L., Ouyang, L.-Z., Liu, Z.-W., Lin, S.-J., Meng, W., Huang, X.-Y., Chen, H.-X., Qiu-Gen, H., & Yang, S.-M. (2019). Comparison between linear and nonlinear machine-learning algorithms for the classification of thyroid nodules. *European Journal of Radiology*, *113*, 251–257. <https://doi.org/10.1016/j.ejrad.2019.02.029>
- Parr, R. G., & Weitao, Y. (1994). *Density-Functional Theory of Atoms and Molecules*. Oxford University Press.
- Pilania, G., Wang, C., Jiang, X., Rajasekaran, S., & Ramprasad, R. (2013). Accelerating materials property predictions using machine learning. *Scientific Reports*, *3*(1), 2810. <https://doi.org/10.1038/srep02810>

- Pisner, D. A., & Schnyer, D. M. (2020). Chapter 6—Support vector machine. In A. Mechelli & S. Vieira (Eds.), *Machine Learning* (pp. 101–121). Academic Press. <https://doi.org/10.1016/B978-0-12-815739-8.00006-7>
- Popescu, M.-C., Balas, V. E., Perescu-Popescu, L., & Mastorakis, N. (2009). Multilayer perceptron and neural networks. *WSEAS Trans. Cir. and Sys.*, 8(7), 579–588.
- Purmala, Y. A. (2021). Implementation of machine learning to increase productivity in the manufacturing industry: A literature review. *Operations Excellence: Journal of Applied Industrial Engineering*, 13(2), 267–275. <https://doi.org/10.22441/oe.2021.v13.i2.026>
- Rajan, A. C., Mishra, A., Satsangi, S., Vaish, R., Mizuseki, H., Lee, K.-R., & Singh, A. K. (2018). Machine-Learning-Assisted Accurate Band Gap Predictions of Functionalized MXene. *Chemistry of Materials*, 30(12), 4031–4038. <https://doi.org/10.1021/acs.chemmater.8b00686>
- Redell, N. (2019). *Shapley Decomposition of R-Squared in Machine Learning Models* (No. arXiv:1908.09718). arXiv. <https://doi.org/10.48550/arXiv.1908.09718>
- Rigatti, S. J. (2017). Random Forest. *Journal of Insurance Medicine*, 47(1), 31–39. <https://doi.org/10.17849/in-sm-47-01-31-39.1>
- Rodriguez-Galiano, V., Sanchez-Castillo, M., Chica-Olmo, M., & Chica-Rivas, M. (2015). Machine learning predictive models for mineral prospectivity: An evaluation of neural networks, random forest, regression trees and support

vector machines. *Ore Geology Reviews*, 71, 804–818.

<https://doi.org/10.1016/j.oregeorev.2015.01.001>

Rumelhart, D. E., McClelland, J. L., & AU. (1986). *Parallel Distributed Processing: Explorations in the Microstructure of Cognition: Foundations*.

The MIT Press. <https://doi.org/10.7551/mitpress/5236.001.0001>

Samuel, A. L. (1959). Some Studies in Machine Learning Using the Game of Checkers. *IBM Journal of Research and Development*, 3(3), 210–229. IBM Journal of Research and Development. <https://doi.org/10.1147/rd.33.0210>

Sarayut Julkaew, Thakerng Wongsirichot, Kasikrit Damkliang, & Pornpen Sangthawan. (2024). Improving accuracy of vascular access quality classification in hemodialysis patients using deep learning with K highest score feature selection. *Journal of International Medical Research*, 52(4). <https://doi.org/10.1177/03000605241232519>

Schmidt, J., Marques, M. R. G., Botti, S., & Marques, M. A. L. (2019). Recent advances and applications of machine learning in solid-state materials science. *Npj Computational Materials*, 5(1), 83. <https://doi.org/10.1038/s41524-019-0221-0>

Sharma, S., Sharma, S., & Athaiya, A. (2020). ACTIVATION FUNCTIONS IN NEURAL NETWORKS. *International Journal of Engineering Applied Sciences and Technology*, 04(12), 310–316. <https://doi.org/10.33564/IJEAST.2020.v04i12.054>

- Snyder, J. C., Rupp, M., Hansen, K., Müller, K.-R., & Burke, K. (2012). Finding Density Functionals with Machine Learning. *Physical Review Letters*, *108*(25), 253002. <https://doi.org/10.1103/PhysRevLett.108.253002>
- Sofi, M. Y., Khan, M. S., Ali, J., & Khan, M. A. (2024). Exploring the lead-free halide Cs₂MGaBr₆ (M = Li, Na) double perovskites for sustainable energy applications. *Scientific Reports*, *14*(1), 5520. <https://doi.org/10.1038/s41598-024-54386-1>
- Venkatesh, B., & Anuradha, J. (2019). A Review of Feature Selection and Its Methods. *Cybernetics and Information Technologies*, *19*(1), 3–26. <https://doi.org/10.2478/cait-2019-0001>
- Vidal, J., Zhang, X.-Y., Yu, L., Luo, J.-W., & Zunger, A. (2011). False-positive and false-negative assignments of topological insulators in density functional theory and hybrids. *Physical Review B*, *84*(4). <https://doi.org/10.1103/physrevb.84.041109>
- Volonakis, G., Filip, M. R., Haghighirad, A. A., Sakai, N., Wenger, B., Snaith, H. J., & Giustino, F. (2016). Lead-Free Halide Double Perovskites via Heterovalent Substitution of Noble Metals. *The Journal of Physical Chemistry Letters*, *7*(7), 1254–1259. <https://doi.org/10.1021/acs.jpcclett.6b00376>
- Wang, Z., & Bovik, A. C. (2009). Mean squared error: Love it or leave it? A new look at Signal Fidelity Measures. *IEEE Signal Processing Magazine*, *26*(1), 98–117. *IEEE Signal Processing Magazine*. <https://doi.org/10.1109/MSP.2008.930649>

- Willmott, C., & Matsuura, K. (2005). Advantages of the mean absolute error (MAE) over the root mean square error (RMSE) in assessing average model performance. *Climate Research*, 30, 79–82. <https://doi.org/10.3354/cr030079>
- Yarotsky, D. (2017). Error bounds for approximations with deep ReLU networks. *Neural Networks*, 94, 103–114. <https://doi.org/10.1016/j.neunet.2017.07.002>
- Yu Zhang, Wenjing Xu, Guangjie Liu, Zhiyong Zhang, Jinlong Zhu, & Meng Li. (2021). Bandgap prediction of two-dimensional materials using machine learning. *PLoS ONE*, 16. <https://doi.org/10.1371/journal.pone.0255637>
- Yuan, L.-D., Deng, H.-X., Li, S.-S., Wei, S.-H., & Luo, J.-W. (2018). Unified theory of direct or indirect band-gap nature of conventional semiconductors. *Physical Review B*, 98(24), 245203. <https://doi.org/10.1103/PhysRevB.98.245203>
- Zhan, Y., Ren, X., Zhao, S., & Guo, Z. (2024). Improving thermodynamic stability of double perovskites with machine learning: The role of cation composition. *Solar Energy*, 279, 112839. <https://doi.org/10.1016/j.solener.2024.112839>
- Zhang, H., Zhang, L., & Jiang, Y. (2019). Overfitting and Underfitting Analysis for Deep Learning Based End-to-end Communication Systems. *2019 11th International Conference on Wireless Communications and Signal Processing (WCSP)*, 1–6. <https://doi.org/10.1109/WCSP.2019.8927876>



- Zhao, Y., & Zhu, K. (2016). Organic–inorganic hybrid lead halide perovskites for optoelectronic and electronic applications. *Chemical Society Reviews*, 45(3), 655–689. <https://doi.org/10.1039/C4CS00458B>
- Zuo, C., Bolink, H. J., Han, H., Huang, J., Cahen, D., & Ding, L. (2016). Advances in Perovskite Solar Cells. *Advanced Science*, 3(7), 1500324. <https://doi.org/10.1002/advs.201500324>