

DAFTAR PUSTAKA

- [1] G. Caire, C. R. C. M. Da Silva, T. Gu, and W. Yuan, "Integrating Sensing into Communications in Multi-Functional Networks," *IEEE Commun. Mag.*, vol. 61, no. 5, pp. 24–25, May 2023, doi: 10.1109/MCOM.2023.10129048.
- [2] Z. Hussain, Q. Z. Sheng, and W. E. Zhang, "A review and categorization of techniques on device-free human activity recognition," *J. Netw. Comput. Appl.*, vol. 167, p. 102738, Oct. 2020, doi: 10.1016/j.jnca.2020.102738.
- [3] P. Bonato, "Advances in wearable technology and applications in physical medicine and rehabilitation," *J. NeuroEngineering Rehabil.*, vol. 2, no. 1, pp. 2, 1743-0003-2–2, Dec. 2005, doi: 10.1186/1743-0003-2-2.
- [4] D. Dias and J. Paulo Silva Cunha, "Wearable Health Devices—Vital Sign Pemantauan, Systems and Technologies," *Sensors*, vol. 18, no. 8, p. 2414, Jul. 2018, doi: 10.3390/s18082414.
- [5] J. K. Aggarwal and M. S. Ryoo, "Human activity analysis: A review," *ACM Comput. Surv.*, vol. 43, no. 3, pp. 1–43, Apr. 2011, doi: 10.1145/1922649.1922653.
- [6] H. Raeis, M. Kazemi, and S. Shirmohammadi, "Human Activity Recognition with Device-Free Sensors for Well-Being Assessment in Smart Homes," *IEEE Instrum. Meas. Mag.*, vol. 24, no. 6, pp. 46–57, Sep. 2021, doi: 10.1109/MIM.2021.9513637.
- [7] Z. Yang, Z. Zhou, and Y. Liu, "From RSSI to CSI: Indoor localization via channel response," *ACM Comput. Surv.*, vol. 46, no. 2, pp. 1–32, Nov. 2013, doi: 10.1145/2543581.2543592.
- [8] Y. Ma, G. Zhou, and S. Wang, "Wi-Fi Sensing with Channel State Information: A Survey," *ACM Comput. Surv.*, vol. 52, no. 3, pp. 1–36, May 2020, doi: 10.1145/3310194.
- [9] S. M. Hernandez and E. Bulut, "Lightweight and Standalone IoT Based Wi-Fi Sensing for Active Repositioning and Mobility," in *2020 IEEE 21st International Symposium on "A World of Wireless, Mobile and Multimedia Networks" (WoWMoM)*, Cork, Ireland: IEEE, Aug. 2020, pp. 277–286. doi: 10.1109/WoWMoM49955.2020.00056.
- [10] R. Schumann, F. Li, and M. Grzegorzek, "Wi-Fi Sensing with Single-Antenna Devices for Ambient Assisted Living," in *Proceedings of the 8th international Workshop on Sensor-Based Activity Recognition and Artificial Intelligence*, Lübeck Germany: ACM, Sep. 2023, pp. 1–8. doi: 10.1145/3615834.3615841.
- [11] S. Arshad *et al.*, "Wi-chase: A Wi-Fi based human activity recognition system for sensorless environments," in *2017 IEEE 18th International Symposium on A World of Wireless, Mobile and Multimedia Networks (WoWMoM)*, Jun. 2017, pp. 1–6. doi: 10.1109/WoWMoM.2017.7974315.
- [12] "StackFi: An Ensemble Learning-Based Model for Wi-Fi Sensing Classification Tasks | IEEE Conference Publication | IEEE Xplore." Accessed: Jan. 08, 2025. [Online]. Available: <https://ieeexplore-ieee-org.ezproxy.ugm.ac.id/abstract/document/10504185>
- [13] S. Bhatia, Z. A. Jaffery, and S. Mehruz, "A Comparative Study of Wireless Communication Protocols for use in Smart Farming Framework Development," in *2023 3rd International Conference on Intelligent*



- Communication and Computational Techniques (ICCT)*, Jaipur, India: IEEE, Jan. 2023, pp. 1–7. doi: 10.1109/ICCT56969.2023.10075696.
- [14] N. A. Khan, A. Awang, and S. A. A. Karim, “Security in Internet of Things: A Review,” *IEEE Access*, vol. 10, pp. 104649–104670, 2022, doi: 10.1109/ACCESS.2022.3209355.
- [15] S. M. Hernandez and E. Bulut, “Wi-Fi Sensing on the Edge: Signal Processing Techniques and Challenges for Real-World Systems,” *IEEE Commun. Surv. Tutor.*, vol. 25, no. 1, pp. 46–76, 2023, doi: 10.1109/COMST.2022.3209144.
- [16] M. S. Gast, *802.11 Wireless Networks: the definitive guide; [creating and administering Wireless Networks]*, 1. ed. in Creating and administering wireless networks. Beijing Köln: O’Reilly, 2002.
- [17] Z. Yang, K. Qian, C. Wu, and Y. Zhang, *Smart Wireless Sensing: From IoT to AIoT*. Singapore: Springer Singapore, 2021. doi: 10.1007/978-981-16-5658-3.
- [18] H. Wang, D. Zhang, Y. Wang, J. Ma, Y. Wang, and S. Li, “RT-Fall: A Real-Time and Contactless Fall Detection System with Commodity Wi-Fi Devices,” *IEEE Trans. Mob. Comput.*, vol. 16, no. 2, pp. 511–526, Feb. 2017, doi: 10.1109/TMC.2016.2557795.
- [19] T. Z. Chowdhury, “Using Wi-Fi Channel State Information (CSI) for Human Activity Recognition and Fall Detection”.
- [20] H. Liu, H. Darabi, P. Banerjee, and J. Liu, “Survey of Wireless Indoor Positioning Techniques and Systems,” *IEEE Trans. Syst. Man Cybern. Part C Appl. Rev.*, vol. 37, no. 6, pp. 1067–1080, Nov. 2007, doi: 10.1109/TSMCC.2007.905750.
- [21] J. B. Andersen, T. S. Rappaport, and S. Yoshida, “Propagation measurements and models for wireless communications channels,” *IEEE Commun. Mag.*, vol. 33, no. 1, pp. 42–49, Jan. 1995, doi: 10.1109/35.339880.
- [22] Andrea Goldsmith, *Wireless Communications*.
- [23] Liyas Ferdy Ray Tarigan, “Rancang Bangun Sistem Pengenalan Aktivitas Manusia dengan Wi-Fi Sensing berdasarkan CSI berbasis ESP-32,” Universitas Gadjah Mada, Yogyakarta, 2024.
- [24] H. Liu, H. Darabi, P. Banerjee, and J. Liu, “Survey of Wireless Indoor Positioning Techniques and Systems,” *IEEE Trans. Syst. Man Cybern. Part C Appl. Rev.*, vol. 37, no. 6, pp. 1067–1080, Nov. 2007, doi: 10.1109/TSMCC.2007.905750.
- [25] D. J. Suroso, M. Arifin, and P. Cherntanomwong, “Distance-based Indoor Localization using Empirical Path Loss Model and RSSI in Wireless Sensor Networks,” *J. Robot. Control JRC*, vol. 1, no. 6, 2020, doi: 10.18196/jrc.1638.
- [26] Z. Yang, K. Qian, C. Wu, and Y. Zhang, *Smart Wireless Sensing: From IoT to AIoT*. Singapore: Springer Singapore, 2021. doi: 10.1007/978-981-16-5658-3.
- [27] A. F. Molisch, *Wireless communications*, 2nd ed. Chichester, West Sussex, U.K: Wiley : IEEE, 2011.
- [28] Y. Ma, G. Zhou, and S. Wang, “Wi-Fi Sensing with Channel State Information: A Survey,” *ACM Comput. Surv.*, vol. 52, no. 3, pp. 1–36, May 2020, doi: 10.1145/3310194.
- [29] C. M. Bishop, *Pattern recognition and machine learning*. in Information science and statistics. New York: Springer, 2006.



- [30] “Comprehensive Survey of Machine Learning Approaches in Cognitive Radio-Based Vehicular Ad Hoc Networks | IEEE Journals & Magazine | IEEE Xplore.” Accessed: Jan. 08, 2025. [Online]. Available: <https://ieeexplore.ieee.org/document/9076680>
- [31] M. T. Thompson, *Intuitive analog circuit design*, Second edition. Kidlington, Oxford: Newnes is an imprint of Elsevier, 2014.
- [32] A. Tawakuli, B. Havers, V. Gulisano, D. Kaiser, and T. Engel, “Survey: Time-series data preprocessing: A survey and an empirical analysis,” *J. Eng. Res.*, p. S2307187724000452, Mar. 2024, doi: 10.1016/j.jer.2024.02.018.
- [33] “Theft detection *dataset* for benchmarking and machine learning based classification in a smart grid environment - ScienceDirect.” Accessed: Jan. 08, 2025. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1319157822001562>
- [34] “KNeighborsClassifier,” scikit-learn. Accessed: Aug. 19, 2024. [Online]. Available: <https://scikit-learn/stable/modules/generated/sklearn.neighbors.KNeighborsClassifier.html>
- [35] “KNeighborsClassifier,” scikit-learn. Accessed: Jan. 04, 2025. [Online]. Available: <https://scikit-learn/stable/modules/generated/sklearn.neighbors.KNeighborsClassifier.html>
- [36] N. Ali, D. Neagu, and P. Trundle, “Evaluation of k-nearest neighbour classifier performance for heterogeneous data sets,” *SN Appl. Sci.*, vol. 1, no. 12, p. 1559, Dec. 2019, doi: 10.1007/s42452-019-1356-9.
- [37] I. Syarif, E. Zaluska, A. Prugel-Bennett, and G. Wills, “Application of Bagging, Boosting and Stacking to Intrusion Detection,” in *Machine Learning and Data Mining in Pattern Recognition*, vol. 7376, P. Perner, Ed., in Lecture Notes in Computer Science, vol. 7376., Berlin, Heidelberg: Springer Berlin Heidelberg, 2012, pp. 593–602. doi: 10.1007/978-3-642-31537-4_46.
- [38] K. Kim and J. Jeong, “Multi-layer Stacking Ensemble for Fault Detection Classification in Hydraulic System,” in *2022 26th International Conference on Circuits, Systems, Communications and Computers (CSCC)*, Crete, Greece: IEEE, Jul. 2022, pp. 341–346. doi: 10.1109/CSCC55931.2022.00066.
- [39] S. Sun, Z. Cao, H. Zhu, and J. Zhao, “A Survey of Optimization Methods From a Machine Learning Perspective,” *IEEE Trans. Cybern.*, vol. 50, no. 8, pp. 3668–3681, Aug. 2020, doi: 10.1109/TCYB.2019.2950779.
- [40] I. Muhamad Malik Matin, “Hyperparameter Tuning Menggunakan GridsearchCV pada Random Forest untuk Deteksi Malware,” *MULTINETICS*, vol. 9, no. 1, pp. 43–50, May 2023, doi: 10.32722/multinetics.v9i1.5578.
- [41] “3.1. Cross-validation: evaluating estimator performance,” scikit-learn. Accessed: Jan. 08, 2025. [Online]. Available: https://scikit-learn/stable/modules/cross_validation.html
- [42] H. Dalianis, “Evaluation Metrics and Evaluation,” in *Clinical Text Mining*, Cham: Springer International Publishing, 2018, pp. 45–53. doi: 10.1007/978-3-319-78503-5_6.
- [43] “(PDF) Confusion Matrix,” ResearchGate. Accessed: Jan. 08, 2025. [Online]. Available: https://www.researchgate.net/publication/355096788_Confusion_Matrix

