

DAFTAR PUSTAKA

- [1] S. Melania, R. Valerie dan L. Gerard, "Motion Mode Recognition and Step Detection Algorithms for Mobile Phone Users," *Sensors (Basel)*, pp. 1539-1562, 2013.
- [2] C. Long, W. Cheng-dong dan Z. Yun-zhou, "Indoor robot localization based on wireless sensor networks," *IEEE Transactions on Consumer Electronics*, vol. 57, pp. 1099-1104, 2011.
- [3] A. Kutalmış, A. H. Kien dan L. Kai, "ThingStore: a platform for internet-of-things application development and deployment," dalam *DEBS '15: Proceedings of the 9th ACM International Conference on Distributed Event-Based Systems*, 2015.
- [4] S.-H. Jung, G. Lee dan D. Han, "Methods and Tools to Construct a Global Indoor Positioning System," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 48, pp. 906-919, 2018.
- [5] R. Favraud, A. Apostolaras, N. Nikaein dan T. Korakis, "Toward moving public safety networks," *IEEE Communications Magazine*, vol. 54, pp. 14-20, 2016.
- [6] O. Kerem, B. Ayhan dan I. Tekin, "Indoor positioning based on global positioning system signals," *Microw. Opt. Technol. Lett.*, pp. 1091-1097, 2013.
- [7] K. Hakyong, "Double-sided two-way ranging algorithm to reduce ranging time," *IEEE Communications Letters*, pp. 486-488, 2009.
- [8] R. Yamasaki, A. Ogino, T. Tamaki, T. Uta, N. Matsuzawa dan T. Kato, "TDOA location system for IEEE 802.11b WLAN," dalam *IEEE 802.11b WLAN, IEEE Wireless Communications and Networking Conference*, 2005.
- [9] C. K. R. H. B. B. Peterson, P. M. Thompson, J. Mendoza dan H. Nguyen, "Spread Spectrum Indoor Geolocation," *Navigation*, pp. 97-102, 1998.
- [10] B. Y. Shikur dan T. Weber, "TDOA/AOD/AOA localization in NLOS environments.," *ICASSP*, pp. 6518-6522. 10.1109, 2014.
- [11] S. M. M. Dehghan, H. Moradi dan S. A. A. Shahidian, "Optimal path planning for DRSSI based localization of an RF source by multiple UAVs," dalam *Second RSI/ISM International Conference on Robotics and Mechatronics (ICRoM)*, 2014.
- [12] K. Yu dan Y. J. Guo, "Statistical NLOS Identification Based on AOA, TOA, and Signal Strength," *IEEE Transactions on Vehicular Technology*, vol. 58,



pp. 274-286, 2009.

- [13] Y. Wang dan L. Shao, "Understanding occupancy pattern and improving building energy efficiency through Wi-Fi based indoor positioning," *Building and Environment*, vol. 114, pp. 106-117, 2017.
- [14] H. Li, J. K. Ng dan K. Liu, "Handling Fingerprint Sparsity for Wi-Fi Based Indoor Localization in Complex Environments," *IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computing, Scalable Computing & Communications, Cloud & Big Data Computing, Internet of People and Smart City Innovation (SmartWorld/SCALCOM/UIC/ATC/CBDCOM/IOP/SCI)*, pp. 1109-1116, 2019.
- [15] A. Abusara, M. S. Hassan dan M. H. Ismail, "Reduced-complexity fingerprinting in WLAN-based indoor positioning," *Telecommun Syst*, p. 407-417, 2017.
- [16] W. Xue, X. Hua, Q. Li, K. Yu, W. Qiu, B. Zhou dan K. Cheng, "A New Weighted Algorithm Based on the Uneven Spatial Resolution of RSSI for Indoor Localization," *IEEE Access*, vol. 6, pp. 26588-26595, 2018.
- [17] S. Hu, "Indoor Location Method Based on Data Mining," dalam *ICSCC 2019: Proceedings of the 2019 5th International Conference on Systems, Control and Communications*, 2019.
- [18] K. Wang, X. Yu, Q. Xiong, Q. Zhu, W. Lu, Y. Huang dan L. Zhao, "Learning to Improve WLAN Indoor Positioning Accuracy Based on DBSCAN-KRF Algorithm From RSS Fingerprint Data," *IEEE Access*, vol. 7, pp. 72308-72315, 2019.
- [19] B. Altintas dan T. Serif, "Improving RSS-Based Indoor Positioning Algorithm via K-Means Clustering," dalam *Wireless Conference 2011 - Sustainable Wireless Technologies (European Wireless), 11th European*, 2011.
- [20] F. Lemic, V. Handziski, M. Aernouts, T. Janssen, R. Berkvens, A. Wolisz dan J. Famaey, "Regression-Based Estimation of Individual Errors in Fingerprinting Localization," *IEEE Access*, vol. 7, pp. 33652-33664, 2019.
- [21] B. Molina, E. Olivares, C. E. Palau dan M. Esteve, "A Multimodal Fingerprint-Based Indoor Positioning System for Airports," *IEEE Access*, vol. 6, pp. 10092-10106, 2018.
- [22] H. Yan, T. Peng, H. Liu dan Y. Ding, "Indoor Position Method of Industrial Robot Based on Wifi Fingerprint Position Technology," *2019 1st International Conference on Industrial Artificial Intelligence (IAI)*, pp. 1-6,



2019.

- [23] H. Li, J. K. Ng, V. C. Cheng dan W. K. Cheung, "Fast indoor localization for exhibition venues with calibrating heterogeneous mobile devices," *Internet of Things*, Vol. %1 dari %23-4, pp. 175-186, 2018.
- [24] F. Zafari, A. Gkelias dan K. K. Leung, "A Survey of Indoor Localization Systems and Technologies," *IEEE Communications Surveys & Tutorials*, vol. 21, pp. 2568-2599, 2019.
- [25] H. Liu, H. Darabi, P. Banerjee dan ". J. Liu, "Survey of wireless indoor positioning techniques and systems," *IEEE Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews)*, vol. 37, p. 1067–1080, 2007.
- [26] D. J. Suroso, P. Cherntanomwong, P. Sooraksa dan J.-i. Takada, "Fingerprint-based technique for indoor localization in wireless sensor networks using Fuzzy C-Means clustering algorithm," *2011 International Symposium on Intelligent Signal Processing and Communications Systems (ISPACS)*, pp. 1-5, 2011.
- [27] S. Bai dan T. Wu, "Analysis of K-Means algorithm on fingerprint based indoor localization system," *2013 5th IEEE International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications*, pp. 44-48, 2013.
- [28] W. W.Chen, Q. Chang, H.-t. Hou dan W.-p. Wang, "A novel clustering and KWNN-based strategy for Wi-Fi fingerprint indoor localization," *2015 4th International Conference on Computer Science and Network Technology (ICCSNT)*, pp. 49-52, 2015.
- [29] Y. Cui., S. Gao. dan Y. Zheng., "Application of ZigBee Location Fingerprint Method in Positioning of Railway Tunnel Staff," *2018 Chinese Automation Congress (CAC)*, pp. 3283-3287, 2018.
- [30] S. G. Lee dan C. Lee, "Developing an Improved Fingerprint Positioning Radio Map using the K-Means Clustering Algorithm," *2020 International Conference on Information Networking (ICOIN)*, pp. 761-765, 2020.
- [31] X. Peng, R. Chen, K. Yu, F. Ye dan W. Xue, "An Improved Weighted K-Nearest Neighbor Algorithm for Indoor Localization," *Electronics*, vol. 9, 2020.
- [32] G. Sukadarmika, N. Er, Linawati dan N. Saputra, "Analisis Coverage WLAN (Wireless Local Area Network) 802.11a Menggunakan Opnet Modeler," *Jurnal Teknologi Elektro*, vol. 9, 2010.



- [33] B. Crow, I. Widjaja, J. Kim dan P. Sakai, "IEEE 802.11 Wireless Local Area Networks," *IEEE Communications Magazine*, vol. 35, pp. 116-126, 1997.
- [34] S. Jasmeet dan V. Singh, "Quality of Service in Wireless LAN Using OPNET MODELER," *Computer Science Semantic Scholar*, 2009.
- [35] S. Banerji dan R. S. Chowdhury, "On IEEE 802.11: Wireless LAN Technology," *International Journal of Mobile Network Communications & Telematics (IJMNCT)*, vol. 3, 2013.
- [36] A. Goldsmith, *Wireless Communications*, Stanford University, 2004.
- [37] K. Mahender, T. Kumar dan K. Ramesh, "Analysis of multipath channel fading techniques in wireless communication systems," dalam *AIP Conference Proceedings*, 2018.
- [38] H. Karel dan V. Fabrice, "Is RSSI a Good Choice for Localization in Wireless Sensor Network?," dalam *Proceedings - International Conference on Advanced Information Networking and Applications, AINA*, 2012.
- [39] P. Kumar, L. Reddy dan S. Varma, "Distance measurement and error estimation scheme for RSSI based localization in Wireless Sensor Networks," *2009 Fifth International Conference on Wireless Communication and Sensor Networks (WCSN)*, pp. 1-4, 2009.
- [40] Muliadi, A. Imran dan M. Rasul, "Pengembangan Tempat Sampah Pintar Menggunakan ESP32," *Jurnal MEDIA ELEKTRIK*, vol. 17, 2020.
- [41] B. Mishra dan A. Kertesz, "The Use of MQTT in M2M and IoT Systems: A Survey," *IEEE Access*, vol. 8, pp. 201071-201086, 2020.
- [42] A. Banks dan R. Gupta, "OASIS MQTT Version 3.1.1.," 15 June 2021.
- [43] M. Simić-Pejović dan A. Garaj, "A comparative analysis of signal space distance metrics for fingerprinting based indoor positioning," *2021 20th International Symposium INFOTEH-JAHORINA (INFOTEH)*, pp. 1-6, 2021.
- [44] X. Ge dan Z. Qu, "Optimization WIFI indoor positioning KNN algorithm location-based fingerprint," dalam *2016 7th IEEE International Conference on Software Engineering and Service Science (ICSESS)*, 2016.
- [45] Y. Zhong, F. Wu, J. Zhang dan B. Dong, "WiFi indoor localization based on K-means," dalam *2016 International Conference on Audio, Language and Image Processing (ICALIP)*, 2016.
- [46] Z. Min dan D. Kai-fei, "Improved Research to K-means Initial Cluster Centers," dalam *2015 Ninth International Conference on Frontier of*



Computer Science and Technology, 2015.

- [47] N. P. E. Merliana, Ernawati dan A. J. Santoso, “Analisa Penentuan Jumlah Kluster Terbaik Pada Metode K-Means Clustering,” dalam *Proceeding SENDI_U*, 2015.
- [48] M. Ester, H.-P. Kriegel, J. Sander dan X. Xu, “A density-based algorithm for discovering clusters in large spatial databases with noise,” dalam *KDD’96: Proceedings of the Second International Conference on Knowledge Discovery and Data Mining*, 1996.
- [49] D. Quezada-Gaibor, L. Klus, J. Torres-Sospedra, E. S. Lohan, J. Nurmi dan J. Huerta, “Improving DBSCAN for Indoor Positioning Using Wi-Fi Radio Maps in Wearable and IoT Devices,” dalam *2020 12th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT)*, 2020.
- [50] T. Takayama, T. Umezawa, N. Komuro dan N. Osawa, “An Indoor Positioning Method Based on Regression Models with Compound Location Fingerprints,” dalam *2018 Ubiquitous Positioning, Indoor Navigation and Location-Based Services (UPINLBS)*, 2018.
- [51] A. Correa, M. Barceló, A. Morell dan J. L. Vicario, “Indoor pedestrian tracking system exploiting multiple receivers on the body,” dalam *2014 International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, 2014.
- [52] D. J. Suroso, P. Cherntanomwong, P. Sooraksa dan J.-i. Takada, “Location fingerprint technique using Fuzzy C-Means clustering algorithm for indoor localization,” *TENCON 2011 - 2011 IEEE Region 10 Conference*, pp. 88-92, 2011.
- [53] P. Cherntanomwong dan D. J. Suroso, “Indoor localization system using wireless sensor networks for stationary and moving target,” *2011 8th International Conference on Information, Communications & Signal Processing*, pp. 1-5, 2011.

