

## DAFTAR PUSTAKA

- [1] R. C. Shit, S. Sharma, D. Puthal, and A. Y. Zomaya, "Location of Things (LoT): A review and taxonomy of sensors localization in IoT infrastructure," *IEEE Commun. Surv. Tutorials*, vol. 20, no. 3, pp. 2028–2061, 2018, doi: 10.1109/COMST.2018.2798591.
- [2] L. Batistic and M. Tomic, "Overview of indoor positioning system technologies," *2018 41st Int. Conv. Inf. Commun. Technol. Electron. Microelectron. MIPRO 2018 - Proc.*, pp. 473–478, 2018, doi: 10.23919/MIPRO.2018.8400090.
- [3] S. Abdul Samadh, Q. Liu, X. Liu, N. Ghourchian, and M. Allegue, "Indoor Localization Based on Channel State Information," *2019 IEEE Top. Conf. Wirel. Sensors Sens. Networks, WiSNet 2019*, no. 1, pp. 1–4, 2019, doi: 10.1109/WISNET.2019.8711803.
- [4] A. Aryasena, R. V. H. Ginardi, and F. Baskoro, "Perancangan Indoor Localization Menggunakan Bluetooth Untuk Pelacakan Posisi Benda di Dalam Ruangan," *J. Tek. ITS*, vol. 5, no. 2, pp. 326–330, 2016, doi: 10.12962/j23373539.v5i2.17043.
- [5] P. Baronti, P. Pillai, V. W. C. Chook, S. Chessa, A. Gotta, and Y. F. Hu, "Wireless sensor networks: A survey on the state of the art and the 802.15.4 and ZigBee standards," *Comput. Commun.*, vol. 30, no. 7, pp. 1655–1695, 2007, doi: 10.1016/j.comcom.2006.12.020.
- [6] A. Papapostolou and H. Chaouchi, "RFID-assisted indoor localization and the impact of interference on its performance," *J. Netw. Comput. Appl.*, vol. 34, no. 3, pp. 902–913, 2011, doi: 10.1016/j.jnca.2010.04.009.
- [7] A. B. M. M. Rahman, T. Li, and Y. Wang, "Recent advances in indoor localization via visible lights: A survey," *Sensors (Switzerland)*, vol. 20, no. 5, 2020, doi: 10.3390/s20051382.
- [8] D. Konings, F. Alam, F. Noble, and E. M. K. Lai, "Device-Free

- Localization Systems Utilizing Wireless RSSI: A Comparative Practical Investigation,” *IEEE Sens. J.*, vol. 19, no. 7, pp. 2747–2757, 2019, doi: 10.1109/JSEN.2018.2888862.
- [9] R. Zhou, X. Lu, P. Zhao, and J. Chen, “Device-Free Presence Detection and Localization with SVM and CSI Fingerprinting,” *IEEE Sens. J.*, vol. 17, no. 23, pp. 7990–7999, 2017, doi: 10.1109/JSEN.2017.2762428.
- [10] R. C. Shit *et al.*, “Ubiquitous Localization (UbiLoc): A Survey and Taxonomy on Device Free Localization for Smart World,” *IEEE Commun. Surv. Tutorials*, vol. 21, no. 4, pp. 3532–3564, 2019, doi: 10.1109/COMST.2019.2915923.
- [11] D. Konings, N. Faulkner, F. Alam, E. M. K. Lai, and S. Demidenko, “FieldLight: Device-Free Indoor Human Localization Using Passive Visible Light Positioning and Artificial Potential Fields,” *IEEE Sens. J.*, vol. 20, no. 2, pp. 1054–1066, 2020, doi: 10.1109/JSEN.2019.2944178.
- [12] F. Zafari, A. Gkelias, and K. K. Leung, “A Survey of Indoor Localization Systems and Technologies,” *IEEE Commun. Surv. Tutorials*, vol. 21, no. 3, pp. 2568–2599, 2019, doi: 10.1109/COMST.2019.2911558.
- [13] D. J. Suroso, A. Samuel, P. Cherntanomwong, and S. Phimmasean, “Indoor Localization using Random Forest Algorithm,” *12th Reg. Conf. Comput. Inf. Eng.*, no. November, pp. 105–108, 2019.
- [14] W. Ruan, Q. Z. Sheng, L. Yao, X. Li, N. J. G. Falkner, and L. Yang, “Device-free human localization and tracking with UHF passive RFID tags: A data-driven approach,” *J. Netw. Comput. Appl.*, vol. 104, no. December 2016, pp. 78–96, 2018, doi: 10.1016/j.jnca.2017.12.010.
- [15] I. Tabian, H. Fu, and Z. S. Khodaei, “A convolutional neural network for impact detection and characterization of complex composite structures,” *Sensors (Switzerland)*, vol. 19, no. 22, pp. 1–25, 2019, doi: 10.3390/s19224933.
- [16] D. Yang, J. Zhang, S. Wang, and X. Zhang, “A Time-Aware CNN-Based

- Personalized Recommender System,” *Complexity*, vol. 2019, 2019, doi: 10.1155/2019/9476981.
- [17] J. P. A. Vieira and R. S. Moura, “An analysis of convolutional neural networks for sentence classification,” *2017 43rd Lat. Am. Comput. Conf. CLEI 2017*, vol. 2017-Janua, pp. 1–5, 2017, doi: 10.1109/CLEI.2017.8226381.
- [18] M. Youssef, M. Mah, and A. Agrawala, “Challenges: Device-free passive localization for wireless environments,” *Proc. Annu. Int. Conf. Mob. Comput. Networking, MOBICOM*, no. May 2014, pp. 222–229, 2007, doi: 10.1145/1287853.1287880.
- [19] M. Seifeldin, “Nuzzer : A Large-Scale Device-Free Passive Localization System for Wireless Environments,” no. Figure 2.
- [20] J. Wilson and N. Patwari, “Radio tomographic imaging with wireless networks,” *IEEE Trans. Mob. Comput.*, vol. 9, no. 5, pp. 621–632, 2010, doi: 10.1109/TMC.2009.174.
- [21] M. Bocca, O. Kaltiokallio, N. Patwari, and S. Venkatasubramanian, “Multiple target tracking with rf sensor networks,” *IEEE Trans. Mob. Comput.*, vol. 13, no. 8, pp. 1787–1800, 2014, doi: 10.1109/TMC.2013.92.
- [22] L. Zhao, C. Su, H. Huang, Z. Han, S. Ding, and X. Li, “Intrusion detection based on device-free localization in the era of IoT,” *Symmetry (Basel)*, vol. 11, no. 5, pp. 1–15, 2019, doi: 10.3390/sym11050630.
- [23] A. B. K. Dwi Joko Suroso, Nur Abdillah Siddiq, Refa Rupaksi, “Low-Cost and Simple Configuration Device-Free Indoor Localization: A Review,” in *Dwi Joko Suroso, Nur Abdillah Siddiq, Refa Rupaksi, Aditya Bagus Krisnawan*, 2020.
- [24] Q. Wang and M. Zuniga, “Passive Sensing and Communication Using Visible Light: Taxonomy, Challenges and Opportunities,” pp. 1–6, 2017, [Online]. Available: <http://arxiv.org/abs/1704.01331>.

- [25] Y. Yang, J. Hao, J. Luo, and S. J. Pan, "CeilingSee: Device-free occupancy inference through lighting infrastructure based LED sensing," *2017 IEEE Int. Conf. Pervasive Comput. Commun. PerCom 2017*, pp. 247–256, 2017, doi: 10.1109/PERCOM.2017.7917871.
- [26] N. Faulkner, F. Alam, M. Legg, and S. Demidenko, "Smart Wall: Passive Visible Light Positioning with Ambient Light Only," *I2MTC 2019 - 2019 IEEE Int. Instrum. Meas. Technol. Conf. Proc.*, vol. 2019-May, pp. 1–6, 2019.
- [27] V. Nguyen, M. Ibrahim, S. Rupavatharam, M. Jawahar, M. Gruteser, and R. Howard, "Eyelight: Light-and-Shadow-Based Occupancy Estimation and Room Activity Recognition," *Proc. - IEEE INFOCOM*, vol. 2018-April, pp. 351–359, 2018, doi: 10.1109/INFOCOM.2018.8485867.
- [28] S. Zhang, K. Liu, Y. Ma, X. Huang, X. Gong, and Y. Zhang, "An Accurate Geometrical Multi-Target Device-Free Localization Method Using Light Sensors," *IEEE Sens. J.*, vol. 18, no. 18, pp. 7619–7632, 2018, doi: 10.1109/JSEN.2018.2862412.
- [29] S. Palipana, B. Pietropaoli, and D. Pesch, "Recent advances in RF-based passive device-free localisation for indoor applications," *Ad Hoc Networks*, vol. 64, pp. 80–98, 2017, doi: 10.1016/j.adhoc.2017.06.007.
- [30] B. P. Crow, I. Widjaja, J. G. Kim, and P. T. Sakai, "IEEE 802.11 wireless local area networks," *IEEE Commun. Mag.*, vol. 35, no. 9, pp. 116–126, 1997, doi: 10.1109/35.620533.
- [31] H. Zimmermann, "OSI Reference Model-The ISO Model of Architecture for Open Systems Interconnection," *IEEE Trans. Commun.*, 1980, doi: 10.1109/TCOM.1980.1094702.
- [32] S. Banerji and R. S. Chowdhury, "On IEEE 802.11: Wireless Lan Technology," *Int. J. Mob. Netw. Commun. Telemat.*, vol. 3, no. 4, pp. 45–64, 2013, doi: 10.5121/ijmnct.2013.3405.
- [33] K. Radio, L. Mubarakah, and A. K. Nirkabel, "Karakteristik Redaman dan

- Shadowing dalam,” vol. 4, no. 1, 2015.
- [34] D. Tse, “Fundamentals of Wireless Communication 1,” 2004.
  - [35] A. Goldsmith, *Wireless Communications*. Stanford University, 2004.
  - [36] Z. Yang, Z. Zhou, and Y. Liu, “From RSSI to CSI,” *ACM Comput. Surv.*, vol. 46, no. 2, pp. 1–32, 2013, doi: 10.1145/2543581.2543592.
  - [37] F. G. Smith, *Optics and Photonics : An Introduction Second Edition*, vol. 69. 2007.
  - [38] T. L. Dimitrova and A. Weis, “The wave-particle duality of light: A demonstration experiment,” *Am. J. Phys.*, vol. 76, no. 2, pp. 137–142, 2008, doi: 10.1119/1.2815364.
  - [39] G. Johnson, “Radiometry and Photometry,” *Color Imaging*, pp. 319–362, 2008, doi: 10.1201/b10637-9.
  - [40] M. M. A. Weerasinghe, “3D Measurement Test Bench for Luminaires 3D Measurement Test Bench for Luminaires,” no. May, 2016.
  - [41] W. Flores-Fuentes, J. E. Miranda-Vega, M. Rivas-López, O. Sergiyenko, J. C. Rodríguez-Quinonez, and L. Lindner, “Comparison between different types of sensors used in the real operational environment based on optical scanning system,” *Sensors (Switzerland)*, vol. 18, no. 6, 2018, doi: 10.3390/s18061684.
  - [42] T. F. Refaat, G. E. Halama, R. J. DeYoung, and NASA Glenn Research Center., “Characterization of advanced avalanche photodiodes for water vapor lidar receivers,” *Nasa/Tp*, no. 2000–210096, p. 1 v., 2000, [Online]. Available: <http://purl.access.gpo.gov/GPO/LPS26575>.
  - [43] J. Gao, J. Luo, A. Xu, and J. I. A. Yu, “Light Intensity Intelligent Control System Research and Design Based on Automobile Sun Visor of BH1750,” pp. 3957–3960, 2017.
  - [44] ROHM-Semiconductor, “Analog Current Output Type Ambient Light Sensor IC,” 2010. <https://www.mouser.com/datasheet/2/348/bh1750fvi-e->

186247.pdf (accessed Oct. 04, 2020).

- [45] M. A. Matin and M. M. Islam, "Overview of Wireless Sensor Network Security Technology," pp. 3–24, 2018, doi: 10.25236/iceeeecs.2018.096.
- [46] H. Huang, H. Zhao, X. Li, S. Ding, L. Zhao, and Z. Li, "An Accurate and Efficient Device-Free Localization Approach Based on Sparse Coding in Subspace," *IEEE Access*, vol. 6, no. October, pp. 61782–61799, 2018, doi: 10.1109/ACCESS.2018.2876034.
- [47] Sandeep Verma, "Network Topologies in Wireless Sensor Networks: A Review 1," *Int. J. Electron. Commun. Technol.*, vol. 4, no. 3, pp. 1–5, 2013, doi: 10.1.1.308.796.
- [48] I. Tabian, H. Fu, and Z. S. Khodaei, "A Convolutional Neural Network for Impact Detection and Characterization of Complex," pp. 1–25, 2019, doi: 10.3390/s19224933.
- [49] J. W. G. Putra, "Pengenalan Konsep Pembelajaran Mesin dan Deep Learning," vol. 4, pp. 1–235, 2019.
- [50] Espressif, "ESP-NOW."