

DAFTAR PUSTAKA

- [1] STMicroelectronics, “STM32 32-bit Arm Cortex MCUs,” Mar. 2019.
- [2] —, “Teseo-LIV3FL Datasheet,” 2022.
- [3] M. H. Chowdhury, Q. D. Hossain, M. A. Hossain, and R. C. C. Cheung, “Single feed circularly polarized crescent-cut and extended corner square microstrip antennas for wireless biotelemetry,” *International Journal of Electrical and Computer Engineering (IJECE)*, vol. 9, no. 3, p. 1902, Jun. 2019. [Online]. Available: <https://doi.org/10.11591/ijece.v9i3.pp1902-1909>
- [4] *KeyStone Architecture Universal Asynchronous Receiver/Transmitter (UART)*. Dallas: Texas Instrument, 2010.
- [5] X. Li, K. Zhang, F. Ma, W. Zhang, Q. Zhang, Y. Qin, H. Zhang, Y. Meng, and L. Bian, “Integrated precise orbit determination of multi-gnss and large leo constellations,” *Remote Sensing*, vol. 11, p. 2514, 10 2019.
- [6] G. Bury, K. Sośnica, and R. Zajdel, “Multi-gnss orbit determination using satellite laser ranging,” *Journal of Geodesy*, vol. 93, pp. 2447–2463, 12 2019.
- [7] R. B. Langley, *The Development of Survey Instrument*, 5th ed., 1999, vol. 10.
- [8] J. L. Devore, *Probability and Statistics for Engineering and the Sciences*, 8th ed. Brooks/Cole, January 2011, iISBN-13: 978-0-538-73352-6.
- [9] M. M. Rohani, D. C. Wijeyesekera, and A. T. A. Karim, “Bus Operation, Quality Service and The Role of Bus Provider and Driver,” *Procedia Engineering*, vol. 53, pp. 167–178, 2013.
- [10] A. Sutandi, “Pentingnya Transportasi Umum Untuk Kepentingan Publik,” *Jurnal Administrasi Publik*, vol. 12, no. 1, pp. 19–34, 2015.
- [11] S. H. Sutar, R. Koul, and R. Suryavanshi, “Integration of Smart Phone and IOT for development of smart public transportation system,” *2016 International Conference on Internet of Things and Applications, IOTA 2016*, pp. 73–78, 2016.
- [12] H. M. Ekhsan, M. A. A. Zainudin, and J. N. Hamid, “Mobile App for Wallet Tracking using GPS Tracker,” *2021 6th IEEE International Conference on Recent Advances and Innovations in Engineering, ICRAIE 2021*, vol. 2021, pp. 47–50, 2022.
- [13] R. Zhang, “Applying rfid and gps tracker for signal processing in a cargo security system,” pp. 1–5, 2013.

- [14] F. I. R. E, N. R, S. M. I. S, S. A, and U. p. S, “Students bus tracker (sbt) enabled gps device for regular monitoring of heavy vehicles through android application,” pp. 363–369, 2021.
- [15] K. H. Asha, K. Abhijna, S. Tabassum, and S. Shaur, “An Intelligent Air Pollution Vehicle Tracker System Using Smoke Sensor and GPS,” *Cognitive Science and Technology*, pp. 399–410, 2022.
- [16] A. Najmurrokhman, Kusnandar, A. Daelami, U. Komarudin, and M. Imanudin, “Design and Implementation of Vehicle Speed Recorder using GPS Tracker and Internet-of-Things Platform,” *ICAICST 2021 - 2021 International Conference on Artificial Intelligence and Computer Science Technology*, pp. 152–156, 2021.
- [17] M. Mukhtar, “GPS based Advanced Vehicle Tracking and Vehicle Control System,” *International Journal of Intelligent Systems and Applications*, vol. 7, no. 3, pp. 1–12, 2015.
- [18] A. R. Widya, “Perancangan sistem tracking bus kota berbasis wireless sensor network untuk mendukung framework smart transportation,” Skripsi, Universitas Gadjah Mada, 2016.
- [19] J. Priono and E. B. Setiawan, “Implementasi geofencing dalam monitoring rute pengiriman kendaraan di sebuah perusahaan ekspedisi,” *Jurnal ULTIMATICS*, vol. 9, no. 2, pp. 106–113, Dec. 2017. [Online]. Available: <https://doi.org/10.31937/ti.v9i2.678>
- [20] S. Davidson and B. Shriver, “An overview of firmware engineering,” *Computer*, vol. 11, no. 5, pp. 21–33, May 1978. [Online]. Available: <https://doi.org/10.1109/c-m.1978.218180>
- [21] “Stack overflow developer survey 2022.” [Online]. Available: <https://survey.stackoverflow.co/2022/>
- [22] D. M. Ritchie, “The development of the c language,” *ACM SIGPLAN Notices*, vol. 28, no. 3, pp. 201–208, Mar. 1993. [Online]. Available: <https://doi.org/10.1145/155360.155580>
- [23] P. J. Deitel and H. M. Deitel, *C how to program: With an introduction to C++*. Pearson, 2016.
- [24] National Coordination Office for Space-Based Positioning, Navigation, and Timing., “Other Global Navigation Satellite Systems (GNSS),” oct 2021.
- [25] EU Agency for the Space Programme, “What is GNSS?” dec 2021.
- [26] M. Lenhart, “Distributed Relay/Replay Attacks on GNSS Signals,” Ph.D. dissertation, KTH Royal Institute of Technology, Stockholm, 2022.

- [27] N. A. Alrajeh, M. Bashir, and B. Shams, "Localization techniques in wireless sensor networks," *International Journal of Distributed Sensor Networks*, vol. 9, no. 6, p. 304628, Jun. 2013. [Online]. Available: <https://doi.org/10.1155/2013/304628>
- [28] American Society of Civil Engineers, *Glossary of the Mapping Sciences*. American Society of Civil Engineers, 1994.
- [29] H. Seo and H. Kim, "Four Anchor Sensor Nodes Based Localization Algorithm over Three-Dimensional Space," *Journal of information and communication convergence engineering*, vol. 10, no. 4, pp. 349–358, dec 2012.
- [30] *GPS Position Accuracy Measures*. Novatel, 2023.
- [31] M. Tahsin, S. Sultana, T. Reza, and M. Hossam-E-Haider, "Analysis of dop and its preciseness in gnss position estimation." *IEEE*, 5 2015, pp. 1–6.
- [32] B. Hofmann-Wellenhof, H. Lichtenegger, and E. Wasle, *Bernhard Hofmann-Wellenhof, Herbert Lichtenegger, Elmar Wasle*. Wien: Springer-Verlag, 2008.
- [33] G. Y. Chin, "Two-dimensional measures of accuracy in navigational systems." United States. Dept. of Transportation. Office of Research and Special Program, 3 1983, pp. 1–3.
- [34] P. P. Sathish, D. K. Reddy, and A. Sarma, "Preliminary performance evaluation of IRNSS-GPS-SBAS receiver in terms of position accuracy and velocity," in *2016 International Symposium on Antennas and Propagation (APSYM)*. IEEE, Dec. 2016. [Online]. Available: <https://doi.org/10.1109/apsym.2016.7929148>
- [35] M. W. Sari, B. Santoso, and M. N. A. Azman, "Implementing geo positioning system for children tracking location monitoring based on android," *Scientific Journal of Informatics*, vol. 8, pp. 161–167, 5 2021.
- [36] R. Diogo de Sousa Morais, "Securetracking: secure position monitoring of children and people with mental disabilities," Ph.D. dissertation, 2015.
- [37] E. R. Pratama, F. Renaldi, F. R. Umbara, and E. C. Djamal, "Geofencing technology in monitoring of geriatric patients suffering from dementia and alzheimer." *IEEE*, 9 2020, pp. 106–111.
- [38] T. Feng and H. J. Timmermans, "Transportation mode recognition using GPS and accelerometer data," *Transportation Research Part C: Emerging Technologies*, vol. 37, pp. 118–130, dec 2013.
- [39] S. Omatu, J. Neves, J. M. C. Rodriguez, J. F. P. Santana, and S. R. Gonzalez, *Distributed Computing and Artificial Intelligence*, S. Omatu, J. Neves, J. M. C. Rodriguez, J. F. P. Santana, and S. R. Gonzalez, Eds. Springer International Publishing, 2013, vol. 217.

- [40] H. Mahmoud and N. Akkari, "Shortest path calculation: A comparative study for location-based recommender system." IEEE, 3 2016, pp. 1–5.
- [41] STMicroelectronics, "Hardware specifications for Teseo-LIV3FL," 2022.
- [42] —, "STM32WL55JC," jul 2022.
- [43] —, "Multiprotocol LPWAN dual core 32-bit Arm® Cortex®-M4/M0+ Lo-Ra®, (G)FSK, (G)MSK, BPSK, up to 256KB flash, 64KB SRAM," 2022.
- [44] —, "STLINK-V3," Mar. 2019.
- [45] Z. Ding, D. Zhang, and C. Ma, "A study of a microstrip patch antenna with a drilled through-holes array structure based on the line source analysis method," *Frontiers in Physics*, vol. 8, Sep. 2020. [Online]. Available: <https://doi.org/10.3389/fphy.2020.00290>
- [46] X. An, X. Meng, and W. Jiang, "Multi-constellation GNSS precise point positioning with multi-frequency raw observations and dual-frequency observations of ionospheric-free linear combination," *Satellite Navigation*, vol. 1, no. 1, Feb. 2020. [Online]. Available: <https://doi.org/10.1186/s43020-020-0009-x>
- [47] A. M. J. Al-Hindawi and I. Talib, "Experimentally evaluation of gps/gsm based system design," *Journal of Electronic Systems*, vol. 2, no. 2, p. 68, Jun 2012.
- [48] I. Lauer, "Static GPS/GNSS survey methods manual," pp. 2–3, January 2019. [Online]. Available: <https://www.isu.edu/media/libraries/geosciences/2019-GPS-Surveying-Manual.pdf>
- [49] G. World, "GPS position accuracy measures," GNSS Application Notes, February 2017, accessed: April 5, 2023. [Online]. Available: https://www.gnss.ca/app_notes/APN-029_GPS_Position_Accuracy_Measures_Application_Note.html
- [50] D. Lu, S. Jiang, B. Cai, W. Shangguan, X. Liu, and J. Luan, "Quantitative analysis of GNSS performance under railway obstruction environment," Apr. 2018. [Online]. Available: <https://doi.org/10.1109/plans.2018.8373489>
- [51] P. Schober, C. Boer, and L. A. Schwarte, "Correlation coefficients," *Anesthesia and Analgesia*, vol. 126, no. 5, pp. 1763–1768, May 2018. [Online]. Available: <https://doi.org/10.1213/ane.0000000000002864>