

## DAFTAR PUSTAKA

- [1] ABU (Asia-Pacific Broadcasting Union), Completed Field, Phonm Penh: ABU Robocon 2023, 2023.
- [2] ABU (Asia-Pacific Broadcasting Union), ABU Asia-Pacific Robot Contest 2023 Phnom Penh, Cambodia Rule Book, Phnom Penh: ABU Robocon 2023, 2023.
- [3] N. Y. Hohmann & Barnard, "Safety Data Sheet: Stainless Steel (Types 304 and 316)," 31 5 2015. [Online]. Available: <https://www.hb.com/images/sds/StainlessSteel.pdf>. [Accessed 10 6 2023].
- [4] I. A. Wolverine Tube, "Safety Data Sheet: Aluminium Alloys," Wolverine Tube: Alabama, 20 5 2015. [Online]. Available: [https://www.wlv.com/wp-content/uploads/2015/06/aluminum\\_alloys\\_sds.pdf](https://www.wlv.com/wp-content/uploads/2015/06/aluminum_alloys_sds.pdf). [Accessed 10 6 2023].
- [5] E. Kurt J. Lesker, "Safety Data Sheet: Iron," 16 3 2017. [Online]. Available: <http://www.nano.pitt.edu/sites/default/files/MSDS/Metals/Fe-Iron.pdf>. [Accessed 10 6 2023].
- [6] N. Trafigura Ventures V.B.V., "Safety Data Sheet: Copper," 20 03 2018. [Online]. Available: [https://www.trafigura.com/media/1563/2018\\_sds\\_copper\\_english.pdf](https://www.trafigura.com/media/1563/2018_sds_copper_english.pdf). [Accessed 10 6 2023].
- [7] V. Kumar, J. Schmiedeler and H.-J. S. S.V. Sreenivasan, Advances in Mechanisms, Robotics, and Design Education and Research, Springer International Publishing Switzerland, 2013.
- [8] J. S. L. Leong, K. T. K. Teo and H. P. Yoong, "Four Wheeled Mobile Robots: A Review," 2022 *IEEE International Conference on Artificial Intelligence in Engineering and Technology (IICAIET)*, 2022.
- [9] H. A. H. R. M. A. G. Aghus Sofwan, "Development of Omni-Wheeled Mobile Robot Based-on Inverse Kinematics and Odometry," pp. 144 - 145, 2019.
- [10] N. S. Nise, Control System Engineering, California: Wiley, 2020.

- [11] R. T. Yunardi, D. Arifianto, F. Bachtiar and J. I. Prananingrum, "Holonomic Implementation of Three Wheels Omnidirectional Mobile Robot using DC Motors," *Journal of Robotics and Control*, vol. 2, no. 2, p. 66, 2021.
- [12] E. Savaee, A. R. Hanzaki and Y. Anabestani, "Kinematic Analysis and Odometry-Based Navigation of an Omnidirectional Wheeled Mobile Robot on Uneven Surfaces," *Journal of Intelligent & Robotic Systems*, vol. 13, no. 108, p. 3, 2023.
- [13] A. Sofwan, H. R. Mulyana, H. Afrisal and A. Goni, "Development of Omni-Wheeled Mobile Robot Based-on Inverse Kinematics and Odometry," in *IEEE*, Semarang, 2019.
- [14] N. Zijie, L. Qiang and S. Zhijun, "Fuzzy Control Strategy for Course Correction of Omnidirectional Mobile Robot," *International Journal of Control, Automation and Systems* 17, pp. 2354 - 2364, 2019.
- [15] A. U. Darajat, U. Murdika, A. S. Repelianto and R. Annisa, "Inverse Kinematic of 1-DOF Robot Manipulator Using Sparse Identification of Nonlinear Systems," *INTEK Jurnal Penelitian*, vol. 10, no. 1, pp. 22-25, 2023.
- [16] Z. Mukhamedov, V. M. Turdaliev and A. A. Kosimov, "Kinematic Nonuniformity of the Rotation of a Toothed Belt Transmission with a Composite Pulley," *Russian Engineering Research*, vol. 40, no. 9, p. 705, 2020.
- [17] F. Bucchi and F. Frendo, "Analysis of Belt Transmissions Capabilities Using the Brush Model," in *IOP Conference Series: Materials Science and Engineering*, Genova, Italy, 2021.
- [18] G.-H. Jang, C.-W. Kim, S.-W. Seo, K.-H. Shin, I.-J. Yoon and J.-Y. Choi, "Torque Characteristic Analysis and Measurement of Magnetic Rack–Pinion Gear Based on Analytical Method," *IEEE Transactions on Magnetics*, vol. 55, no. 7, p. 1, 2019.
- [19] J. Shao, K. Ding and D. Wang, "Kinematics Analysis of Incomplete Gear and Rack Pumping Unit," *Journal of Physics: Conference Series*, vol. 2095, no. 1, pp. 2-5, 2021.

- [20] D. Guo, H. Li, Y. Wang, S. Ge and X. Bai, "A decoupling method for multi-stage gear transmission error," *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, vol. 45, no. 8, p. 3, 2023.
- [21] N. Z. D. T. F. U. E. L. Udeh Tochukwu Livinus, "Effects of a PID Controller in Closed Loop Feedback System," *International Journal of Scientific & Engineering Research*, no. 9, pp. 1255-1258, 2018.
- [22] S. K. P. G. Huma Khan, "Comparison of various controller design for the speed control of DC motors used in two wheeled mobile robots," *International Journal of Information Technology*, pp. 713-720, 2021.
- [23] A. I. A. N. K. N. Wan Mohd Nafis Wan Lezaini, "Integration of PI-Anti-windup and Fuzzy Logic Control with External Derivative Solution for Leg's Robot Angular Joint Precision," *Proceedings of the 10th National Technical Seminar on Underwater System Technology*, no. 2018, pp. 161 - 171, 2018.
- [24] MATLAB, "Anti - Windup Control Using PID Controller Block," The Mathworks Inc., 2023. [Online]. Available: <https://au.mathworks.com/help/simulink/slref/anti-windup-control-using-a-pid-controller.html>. [Accessed 8 Agustus 2023].
- [25] S. N. E. Aisha Sir Elkhatem, "Robust LQR and LQR-PI control strategies based on adaptive weighting matrix selection for a UAV position and attitude tracking control," *Alexandria Engineering Journal*, no. Sciencie Direct, pp. 6275 - 6292, 2021.
- [26] D. A. L. Robert L. Williams II, Linear State-Space Control Systems, New York: Wiley, 2007.
- [27] K. H.-G. S. Y. P. I. Kim Kwansu, "Design and Simulation of an LQR-PI Control Algorithm for Medium Wind Turbine," *Energies*, 2019.
- [28] L. Tagliavini, G. Colucci, A. Botta, P. Cavallone, L. Baglieri and G. Quaglia, "Wheeled Mobile Robots: State of the Art Overview and Kinematic Comparison Among Three Omnidirectional Locomotion Strategies," *Journal of Intelligent & Robotic Systems*, vol. 106, no. 2, p. 3, 2022.

- [29] S. Habibian, M. Dadvar, B. Peykari, A. Hosseini, M. H. Salehzadeh and F. Najafi, "Design and implementation of a maxi-sized mobile robot (Karo) for rescue missions," *Habibian et al. Robomech Journal*, vol. 8, no. 1, p. 7, 2021.
- [30] L. Tagliavini, G. Colucci, A. Botta, P. Cavallone, L. Baglieri and G. Quaglia, "Wheeled Mobile Robots: State of the Art Overview and Kinematic Comparison Among Three Omnidirectional Locomotion Strategies," *Journal of Intelligent & Robotic Systems*, 2022.
- [31] W. S. Cory Beard, Wireless Communication Networks and Systems, Kansas: Pearson, 2016.
- [32] T. Sutikno, "Dasar - Dasar Motor DC dan Pengemudiannya," *Diktat II Kuliah Kendali Motor*, 2018.
- [33] A. W. Alhashimi, "Statistical Sensor Calibration Algorithms," Luleå University of Technolog, Luleå, 2018.
- [34] D. U. Rijalusalam and Iswanto, "Implementation Kinematics Modeling and Odometry of Four Omni Wheel Mobile Robot on The Trajectory Planning and Motion Control Based Microcontroller," *Journal of Robotics and Control*, vol. 2, no. 5, p. 450, 2021.
- [35] T. A. B. S. N. G. I. I. H. Muhammad Rakha Firdaus, "Identifikasi Sistem Motor DC dan Penerapan Kendali PID, LQR, dan Servo Tipe 1 Berbasis Arduino-MATLAB," *Jurnal Listrik, Instrumentasi, dan Elektronika Terapan*, no. 2023, 2023.

## LAMPIRAN CD-1

Curriculum Vitae 1