

Daftar Pustaka

- [1] J. M. Larrazabal and M. S. Peñas, “Intelligent rudder control of an unmanned surface vessel,” *Expert Syst. Appl.*, vol. 55, pp. 106–117, 2016, doi: 10.1016/j.eswa.2016.01.057.
- [2] T. Mina, Y. Singh, and B.-C. Min, “Maneuvering Ability-Based Weighted Potential Field Framework for Multi-USV Navigation, Guidance, and Control,” *Mar. Technol. Soc. J.*, vol. 54, pp. 40–58, Jul. 2020, doi: 10.4031/MTSJ.54.4.6.
- [3] M. R. Rosa, S. Baldi, X. Wang, M. Lv, and W. Yu, “Adaptive hierarchical formation control for uncertain Euler–Lagrange systems using distributed inverse dynamics,” *Eur. J. Control*, vol. 48, pp. 52–65, Jul. 2019, doi: 10.1016/J.EJCON.2018.11.001.
- [4] S. N. Larson, “Design and Construction of Unmanned Surface Vehicles,” 2015, [Online]. Available: <http://gradworks.umi.com/15/93/1593188.html>.
- [5] Aries Sulisetyono, “PENGUJIAN GERAK TURNING CIRCLE PADA KAPAL CEPAT TWIN SCREW BERKEMUDI EKOR IKAN FORKED MENGGUNAKAN TEKNIK OPEN FREE RUNNING TEST,” *Inst. Teknol. Sepuluh Nop. Surabaya*, 2015.
- [6] H. Hasan, S. Pengajar, P. Studi, T. Sistem, and U. Hasanuddin, “Nonlinear control of unmanned surface vehicle,” vol. 14, pp. 1–8, 2016.
- [7] Y. Fan, X. Sun, G. Wang, and C. Guo, “On fuzzy self-adaptive PID control for USV course,” *Chinese Control Conf. CCC*, vol. 2015-Septe, pp. 8472–8478, 2015, doi: 10.1109/ChiCC.2015.7260979.
- [8] Z. Xuefei, Y. Peng, T. Junzhe, W. Shujie, X. Hongshen, and S. Ye, “Heading Control Method of Unmanned Sailing Boats Based on Fuzzy PID,” *Ocean Univ. China*, vol. 14, no. 6, 2019.
- [9] D. U. Rijalusalam and I. Iswanto, “Implementation kinematics modeling and odometry of four omni wheel mobile robot on the trajectory planning and motion control based microcontroller,” *J. Robot. Control*, vol. 2, no. 5, pp. 448–455, 2021, doi: 10.18196/jrc.25121.
- [10] C. Lv, H. Yu, Z. Hua, L. Li, and J. Chi, “Speed and Heading Control of an Unmanned Surface Vehicle Based on State Error PCH Principle,” *Math. Probl. Eng.*, vol. 2018, p.

- 7371829, 2018, doi: 10.1155/2018/7371829.
- [11] E. Group, "Inspector 125 Unmanned Surface Vehicle (USV)," *Naval Technology*, 2019. <https://www.naval-technology.com/projects/inspector-125/>.
- [12] S. Ghosh, "Understanding Different Types Of Manoeuvres of a Vessel," *marineinsight*, 2019. <https://www.marineinsight.com/naval-architecture/different-types-of-manoevres-of-a-vessel/> (accessed Nov. 02, 2021).
- [13] F. Ikeda, S. Toyama, S. Ishiduki, and H. Seta, "A study of a steering system algorithm for pleasure boats based on stability analysis of a human-machine system model," *J. Phys. Conf. Ser.*, vol. 744, no. 1, 2016, doi: 10.1088/1742-6596/744/1/012032.
- [14] J. T. Elektro, F. T. Industri, and U. K. Petra, "Kontrol PID Untuk Pengaturan Kecepatan Motor DC Dengan Metode Tuning Direct Synthesis," *J. Tek. Elektro Univ. Kristen Petra*, vol. 4, no. 1, pp. 10–17, 2004, doi: 10.9744/jte.4.1.
- [15] F. Greg Shinsky, "PID control," *Meas. Instrumentation, Sensors Handb. Spat. Mech. Therm. Radiat. Meas. Second Ed.*, pp. 91-1-91–9, 2017, doi: 10.1201/b15474.
- [16] Ali Marzoughi, "Optimized proportional integral derivative (PID) controller for the exhaust temperature control of a gas turbine system using particle swarm optimization," *Int. J. Phys. Sci.*, vol. 7, no. 5, 2012, doi: 10.5897/ijps11.1097.
- [17] B. Sampurno, A. Abdurrakhman, and H. S. Had, "Sistem Kendali PID pada Pengendalian Suhu untuk Kestabilan Proses Pemanasan Minuman Sari Jagung," p. 242, 2016, doi: 10.5614/sniko.2015.34.
- [18] R. Aisuwarya and Y. Vidiana, "Smart Rice Cooker with PID Method to Warm Food using Android Application," *Mecn. 2020 - Int. Conf. Mech. Electron. Comput. Ind. Technol.*, no. June, pp. 261–266, 2020, doi: 10.1109/MECnIT48290.2020.9166679.
- [19] N. P. Lawrence, G. E. Stewart, P. D. Loewen, M. G. Forbes, J. U. Backstrom, and R. B. Gopaluni, "Optimal PID and antiwindup control design as a reinforcement learning problem," *IFAC-PapersOnLine*, vol. 53, no. 2, pp. 236–241, 2020, doi: 10.1016/j.ifacol.2020.12.129.
- [20] A. S. Wibowo and E. Susanto, "Performance Improvement of Water Temperature Control using Anti-windup Proportional Integral Derivative," *Lontar Komput. J. Ilm.*

Teknol. Inf., vol. 9, no. 2, p. 81, 2018, doi: 10.24843/lkjiti.2018.v09.i02.p03.

- [21] Arduino, “Arduino Mega 2560 Rev3.” <https://store.arduino.cc/products/arduino-mega-2560-rev3>.
- [22] D. F. Driver, “nection of an external sensing resistor. An additional supply input is provided so that the logic works at a lower voltage.,” 2000.
- [23] ITead Studio, “HC - 05 - Bluetooth to Serial Port Module (Datasheet),” *Datasheet*, p. 1, 2010.