

## DAFTAR PUSTAKA

- U2D2. (n.d.). Retrieved June 26, 2023, from <https://emanual.robotis.com/docs/en/parts/interface/u2d2/>
- ROBOTIS STORE | Robot is... (n.d.). Retrieved June 26, 2023, from <https://robotis.us/>
- ROBOTIS OP3. (n.d.). Retrieved June 26, 2023, from <https://emanual.robotis.com/docs/en/platform/op3/introduction/>
- OpenCR 1.0. (n.d.). Retrieved June 26, 2023, from <https://emanual.robotis.com/docs/en/parts/controller/opencr10/>
- Intel® NUC Kit NUC5i3RYH. (n.d.). Retrieved June 26, 2023, from <https://www.intel.co.id/content/www/id/id/products/sku/83257/intel-nuc-kit-nuc5i3ryh/specifications.html>
- Obstacle Run - *HuroCup Laws of the Game* - Google Dokumen. (n.d.). Retrieved March 15, 2022, from [https://docs.google.com/document/d/1JF4hpEZ4fg\\_3BNnBojY3ZAYBdgUDpfGaB\\_MJusSJ5-8/edit#heading=h.6daqde8uivin](https://docs.google.com/document/d/1JF4hpEZ4fg_3BNnBojY3ZAYBdgUDpfGaB_MJusSJ5-8/edit#heading=h.6daqde8uivin)
- HuroCup - *FIRA RoboWorld Cup official website*. (n.d.). Retrieved March 15, 2022, from <https://firaworldcup.org/leagues/fira-sports/hurocup/>
- Abidin, Z., Joni, K., & Ibadillah, A. F. (2017). Rancang Bangun Robot Penghindar Halangan Berbasis Kamera Menggunakan Deteksi Kontur. *Jurnal Infotel*, 9(3), 248–256. <https://doi.org/10.20895/infotel.v9i3.279>.
- Afifudin, M., Pratama, G. A., Nirkabel, K., & Luar, D. (2022). Deteksi ruang parkir menggunakan opencv. 2(1), 1–8.
- Agrawal, S., & S.W.Varade, D. M. (2014). *Collision detection and avoidance system based on computer vision*. 2nd International Conference on Communication and Electronics Systems (ICCES 2017) IEEE Xplore Compliant, February, 476–477.
- Anand, G., & Kumawat, A. K. (2021). *Object detection and position tracking in real time using Raspberry Pi*. Materials Today: Proceedings, 47, 3221–3226. <https://doi.org/10.1016/j.matpr.2021.06.437>.
- Baltes, J., Kopacek, P., & Schörghuber, M. (2014). *A Cost Oriented Humanoid Robot Motion Control System*. In IFAC Proceedings Volumes (IFAC-PapersOnline) (Vol. 19, Issue 3). IFAC. <https://doi.org/10.3182/20140824-6-za-1003.01243>.
- Baltes, J., Mayer, N. M., Tu, K.-Y., Liu, A., Mayer, N. M., & Anderson, J. (2009). *The Humanoid Leagues in Robot Soccer Competitions Using a Symmetric Rotor as a Tool for Balancing View project Robotic Project View project The Humanoid Leagues in Robot Soccer Competitions*. <https://www.researchgate.net/publication/228721648>.

- Bauer, J., Kopacek, P., Dàpolito, F., Kräuter, L., & Dorna, I. (2015). *Cost Oriented (Humanoid) Robots*. *IFAC-PapersOnLine*, 48(24), 173–177. <https://doi.org/10.1016/j.ifacol.2015.12.078>.
- Budiharto, W., Moniaga, J., Meiliana, & Aulia, A. (2013). *A framework for obstacles avoidance of humanoid robot using stereo vision: Regular paper*. *International Journal of Advanced Robotic Systems*, 10, 1–7. <https://doi.org/10.5772/55608>.
- Cesare, S., & Xiang, Y. (2012). Feature extraction. *SpringerBriefs in Computer Science*, 0(9781447129080), 57–61. [https://doi.org/10.1007/978-1-4471-2909-7\\_7](https://doi.org/10.1007/978-1-4471-2909-7_7).
- D'Apolito, F. (2019). *Legs' trajectory generation for a cost-oriented humanoid robot: A symmetrical approach*. *IFAC-PapersOnLine*, 52(25), 95–99. <https://doi.org/10.1016/j.ifacol.2019.12.453>.
- D'Apolito, F. (2018). *Obstacle Detection and Avoidance of a Cost-Oriented Humanoid Robot*. *IFAC-PapersOnLine*, 51(30), 198–203. <https://doi.org/10.1016/j.ifacol.2018.11.286>.
- Delfin, J., Becerra, H. M., & Arechavaleta, G. (2018). *Humanoid navigation using a visual memory with obstacle avoidance*. *Robotics and Autonomous Systems*, 109, 109–124. <https://doi.org/10.1016/j.robot.2018.08.010>.
- Dompeipen, T. A., Najoan, M. E. I., Elektro, J. T., Sam, U., & Manado, R. (2021). *Computer Vision Implementation for Detection and Counting the Number of Humans*. *Jurnal Teknik Informatika*, 16(1), 65–76.
- Du, G., Long, S., Li, F., & Huang, X. (2018). *Active collision avoidance for human-robot interaction with UKF, expert system, and artificial potential field method*. *Frontiers Robotics AI*, 5(NOV), 1–11. <https://doi.org/10.3389/frobt.2018.00125>.
- Duda, R. O., & Hart, P. E. (1972). *Use of the Hough Transformation to Detect Lines and Curves in Pictures*. *Communications of the ACM*, 15(1), 11–15. <https://doi.org/10.1145/361237.361242>.
- Estefo, P., Simmonds, J., Robbes, R., & Fabry, J. (2019). *The Robot Operating System: Package reuse and community dynamics*. *Journal of Systems and Software*, 151, 226–242. <https://doi.org/10.1016/J.JSS.2019.02.024>.
- Fathi, Z. M., Fahmi, A., & Sunarya, U. (2016). Robot Pengenal dan Pencari Objek dengan Kamera Menggunakan Metode Transformasi Hough. *Seniati*, 406–411.
- Fatimah, F., Laxmi, G. F., & Eosina, P. (2017). Pengubahan Data Image Ikan Air Tawar ke Data Vektor menggunakan Edge Detection Metode Canny. *Jurnal Riset Pendidikan Matematika*, 9, 55–60.
- Felzenszwalb, P. F., & Huttenlocher, D. P. (2004). *Distance transforms of sampled functions*. *Cornell Computing and Information Science Technical Report TR20041963*, 4, 1–15. <https://doi.org/10.4086/toc.2012.v008a019>.

- Feng, Y., Zhang, J., & Wang, S. (2017). *A new edge detection algorithm based on Canny idea*. *AIP Conference Proceedings*, 1890(October). <https://doi.org/10.1063/1.5005213>.
- Fernández-García, N. L., Del-Moral Martínez, L., Carmona-Poyato, A., Madrid-Cuevas, F. J., & Medina-Carnicer, R. (2016). *A new thresholding approach for automatic generation of polygonal approximations*. *Journal of Visual Communication and Image Representation*, 35, 155–168. <https://doi.org/10.1016/j.jvcir.2015.12.013>
- Hestrio, Y. F., Angelica, A. M., & Julian, M. A. (2017). Pengembangan Pola Berjalan dan Stabilisasi pada Humanoid Robot Soccer DARDROID (*DARWIN-ODROID*). 212–218.
- IEEE UAE Student Branch. (2016). *Distance in Classification*.
- Ii, R. L. W. (2016). *DETC2012-70265*. 1–10.
- J.Bruemmer, David., & S.Swinson, Mark (2003). *Humanoid Robots*.
- Kezia Satyawati, Junius Karel Tampubolon, R. G. S. (2016). Analisis Gaussian Dan Edge Connection Dalam. *Informatika*, 12(1), 33–42.
- Kim, J., & Do, Y. (2012). *Moving obstacle avoidance of a mobile robot using a single camera*. *Procedia Engineering*, 41(Iris), 911–916. <https://doi.org/10.1016/j.proeng.2012.07.262>.
- Kopacek, P. (2011). *Cost Oriented Humanoid Robots*. *IFAC Proceedings Volumes*, 44(1), 12680–12685. <https://doi.org/10.3182/20110828-6-IT-1002.01056>.
- Kragic, D., & Vincze, M. (2009). *Vision for Robotics. Foundations and Trends in Robotics*, 1(1), 1–78. <https://doi.org/10.1561/2300000001>.
- Kurniawati, I. D., & Kusumawardhani, A. (2017). Implementasi Algoritma Canny dalam Pengenalan Wajah menggunakan Antarmuka GUI Matlab. *Jurnal Institut Teknologi Sepuluh Nopember, December*, 3–8.
- Ma, C., Zhou, Y., & Li, Z. (2020). A New Simulation Environment Based on Airsim, ROS, and PX4 for Quadcopter Aircrafts. *2020 6th International Conference on Control, Automation and Robotics, ICCAR 2020*, 486–490. <https://doi.org/10.1109/ICCAR49639.2020.9108103>.
- Mehmeti, X., Kopacek, P., & Hajrizf, E. (2019). *Cost oriented control of humanoid robots*. *IFAC-PapersOnLine*, 52(25), 87–90. <https://doi.org/10.1016/j.ifacol.2019.12.451>.
- Moch. Fahrur Rozi, Haryanto, K. A. W. (2019). *Klasifikasi\_Kecacatan\_Keramik\_Dengan\_Menggunakan\_D*. *J-Elektrik*, 1(2), 97–103.
- Molano, R., Rodríguez, P. G., Caro, A., & Durán, M. L. (2012). *Finding the largest area rectangle of arbitrary orientation in a closed contour*. *Applied Mathematics and Computation*, 218(19), 9866–9874. <https://doi.org/10.1016/j.amc.2012.03.063>.

- Morgan, A. D., Bs, B., & Johnson, A. S. (1990). *Automatic Number-Plate Recognition* (Wikipedia). *Image Analysis for Transport Applications*, June, 6/1-6/6. [http://ieeexplore.ieee.org/xpls/abs\\_all.jsp?arnumber=191011](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=191011).
- Ni, J., Khan, Z., Wang, S., Wang, K., & Haider, S. K. (2016). *Automatic detection and counting of circular shaped overlapped objects using circular hough transform and contour detection*. *Proceedings of the World Congress on Intelligent Control and Automation (WCICA)*, 2016-September(Kylx15 0496), 2902–2906. <https://doi.org/10.1109/WCICA.2016.7578268>.
- Normalasari, D., Wajiyansyah, A., Bramanto, A., & Putra, W. (2018). *Visual Perception Berbasis Camera Pixy Pada Robot Wall Follower*. 3(1), 192–198
- Nurjanah, I. (n.d.). Perbandingan Deteksi Tepi Canny Menggunakan *Global Thresholding dengan Mean* , *Global Thresholding dengan Median* , dan *Hysteresis Thresholding*. I.
- Pambudi, R., Winarno, T., & Nurcahyo, S. (2020). Identifikasi Ruangan Dengan Sensor Kamera Pada Robot Krpai Berkaki. *Jurnal Elektronika Dan Otomasi Industri*, 3(1), 45. <https://doi.org/10.33795/elkolind.v3i1.65>.
- Poda, X., & Qirici, O. (2018). *Shape detection and classification using OpenCV and Arduino Uno*. *CEUR Workshop Proceedings*, 2280, 128–136.
- Rath, A. K., Parhi, D. R., Das, H. C., Muni, M. K., & Kumar, P. B. (2018). *Analysis and use of fuzzy intelligent technique for navigation of humanoid robot in obstacle prone zone*. *Defence Technology*, 14(6), 677–682. <https://doi.org/10.1016/j.dt.2018.03.008>.
- Safari, A. (2020). Implementasi Algoritma *Canny Edge Detection* untuk Identifikasi Scratch pada *Liquid Cristal Display Case (LCD Case)*. 1, 12–20.
- Sarma, P., Kakati, S., & Deb, S. (2019, June). *Real Time 2D Shape and Object Recognition: A Child Learning Approach*. In *International Conference on Advanced Informatics for Computing Research* (pp. 113-122). Springer, Singapore.
- Schlecht, J. (2011). *Contour-based Object Detection*. 1–11.
- Setiadji, A. (2020). Sistem Visi Untuk Kendali *Autonomous Robot Humanoid* Dengan Metode *Color Thresholding* dan Deteksi *Contour* Pada Kejuaran Hurocup Cabang Sprint. S1. Universitas Pembangunan Nasional “Veteran” Yogyakarta.
- Shavetov, S. V., Merkulova, I. I., Ekimenko, A. A., Borisov, O. I., & Gromov, V. S. (2019). *Computer Vision in Control and Robotics for Educational Purposes*. *IFAC-PapersOnLine*, 52(9), 144–146. <https://doi.org/10.1016/j.ifacol.2019.08.136>.
- Suryadi, K., & Sikumbang, S. (2015). *Human Detection Menggunakan Metode Histogram Of Oriented Gradients ( HoG ) Berbasis Open \_ Cv*.
- Tofik, N. (2018). Sistem Pengenalan Bola Dan Gawang Pada Robot Sepakbola Beroda Berbasis Mesin Visi. *October 2020*, 30–31.

- Tu, K., Lin, H., Li, Y., Hung, C., & Baltes, J. (2020). *First human–robot archery competition: A new humanoid robot challenge*. *The Knowledge Engineering Review*, 35, E22. doi:10.1017/S026988892000003X.
- Tuohy, S., O'Cualain, D., Jones, E., & Glavin, M. (2010). *Distance determination for an automobile environment using inverse perspective mapping in OpenCV*. *IET Conference Publications*, 2010(566 CP), 100–105. <https://doi.org/10.1049/cp.2010.0495>.
- Vital, J. P. M., Fonseca Ferreira, N. M., Valente, A., Filipe, V., & Soares, S. F. S. P. (2019). *Learning computer vision using a humanoid robot*. *IEEE Global Engineering Education Conference, EDUCON*, April-2019, 639–645. <https://doi.org/10.1109/EDUCON.2019.8725196>.
- Xie, G., & Lu, W. (2013). Image Edge Detection Based On Opencv. *International Journal of Electronics and Electrical Engineering*, 1(2), 104–106. <https://doi.org/10.12720/ijeee.1.2.104-106>.
- Zheng, L., Wang, S., Wang, J., & Tian, Q. (2016). *Accurate Image Search with Multi-Scale Contextual Evidences*. *International Journal of Computer Vision*, 120(1), 1–13. <https://doi.org/10.1007/s11263-016-0889-2>.
- Zulfikar, F. (2020). *Robot Humanoid : Sistem Kendali Visi Autonomus Hurocup Cabang Maraton*. S1. Universitas Pembangunan Nasional “Veteran” Yogyakarta.