DAFTAR PUSAKA

[1] M. Y. . Idris, Y. Y. Leng, E. M. Tamil, N. M. Noor, and Z. Razak, “Car park system: A review of Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR,” 2009.

[2] D. Susandi, W. Nugraha, and S. F. Rodiyansyah, “Perancangan Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Pada Prototype Smart Office Berbasis Internet Of Things,” Pros. Semnastek, no. November, pp. 1–2, 2017.

[3] M. Y. , C. S. , Ikhwan Ruslianto, “Pendeteksi Tempat Parkir Mobil Kosong Menggunakan Metode Canny,” Coding J. Komput. dan Apl., vol. 5, no. 3, 2017, doi: 10.26418/coding.v5i3.22571.

[4] E. V. J. Paays, S. Agoes, and H. Candra, “Perancangan Model Sistem Area Parkir Online Dengan Aplikasi Berbasis Mikrokontroler,” Jetri J. Ilm. Tek. Elektro, vol. 18, no. 2, pp. 187– 202, 2021, doi: 10.25105/jetri.v18i2.7721

[5] N. Ramsari, “Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Dengan Sistem Reservasi,” J. Informatics, Inf. Syst. Softw. Eng. Appl., vol. 1, no. 2, pp. 9–19, 2019, doi: 10.20895/inista.v1i2.28.

[6] G. N. Octavia, “Evaluasi Keamanan dan Keselamatan Parkir Sepeda Motor Mal TALENTA Conference Series Evaluasi Keamanan dan Keselamatan Parkir Sepeda Motor Mal Podomoro City,” Talent. Publ. Univ. Sumatera Utara, vol. 5, no. 1, 2022, doi: 10.32734/ee.v5i1.1479.

[7] J. RP, R. K, A. A, and L. N. K, “IoT in smart cities: A contemporary survey,” Glob. Transitions Proc., vol. 2, no. 2, pp. 187–193, 2021, doi: 10.1016/j.gltp.2021.08.069.

[8] G. R. Koten et al., “Penerapan internet of things pada Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR untuk kebutuhan pengembangan smart city,” J. Tek. Ind. dan Manaj. Rekayasa, vol. 1, no. 1, pp. 49–59, 2023, doi: 10.24002/jtimr.v1i1.7204.

[9] M. Dixit, A. Priya, G. Haldiya, A. Priya, and B. Kumar, “Smart Car Parking System using Arduino,” 2023 IEEE Int. Students’ Conf. Electr. Electron. Comput. Sci. SCEECS 2023, vol. 169, no. 1, pp. 13–18, 2023, doi: 10.1109/SCEECS57921.2023.10063121.

[10] A. O. Salau, B. A. Adaramola, O. Rominiyi, K. Agabalajobi, P. Srivastava, and N. Kumar, Development of a Smart Multi-level Car Parking System Prototype. 2021.

doi: 10.1007/978-981- 15-9956-9_64.

[11] S. Sen, U. Mukherjee, S. Banerjee, A. Biswas, S. Ray, and S. Chowdhuri, "Optimizing Urban Mobility: A Comprehensive Framework for Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPRs Integration Using IoT and Sensor Technologies," 2023 7th Int. Conf. Electron. Mater. Eng. Nano-Technology, IEMENTech 2023, p. 10423488, 2023, doi: 10.1109/IEMENTech60402.2023.10423488.

[12] T. Lin et al., "A Survey of Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Solutions To cite this version : HAL Id : hal- 01501556," IEEE Trans. Intell. Trasp. Syst., vol. 18, no. 12, pp. 3229–3253, 2017.

[13] H. Al-Kharusi and I. Al-Bahadly, "Intelligent Parking Management System Based on Image Processing," World J. Eng. Technol., vol. 02, no. 02, pp. 55–67, 2014, doi: 10.4236/wjet.2014.22006.

[14] Y. Geng and C. G. Cassandras, "A new „Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR" System Infrastructure and Implementation," Procedia - Soc. Behav. Sci., vol. 54, no. October 2012, pp. 1278–1287, 2012, doi: 10.1016/j.sbspro.2012.09.842

[15] O. Kula, R. Shabalala, and B. Monchusi, "A Parking Ranging System Based on Microcontroller and Infrared Sensor," in *International Conference on Electrical, Computer and Energy Technologies, ICECET 2023*, 2023. doi: 10.1109/ICECET58911.2023.10389407.

[16] C. M. Schafer, "Three ways big data can realize sustainability, digital transformation initiatives,"
Plant Engineering, vol. 78, no. 1, pp. 22–23, 2024.

[17] A. S. F. Gani *et al.*, "A live-video automatic number plate recognition (anpr) system using convolutional neural network (CNN) with data labelling on an android smartphone," *International Journal of Emerging Technology and Advanced Engineering*, vol. 11, no. 10, pp. 88–95, 2021, doi: 10.46338/ijetae1021_11.

[18] T. P. Hong, A. C. Soh, H. Jaafar, and A. J. Ishak, "Real-time monitoring system for parking space management services," in *Proceedings - 2013 IEEE Conference on Systems, Process and Control, ICSPC 2013*, 2013, pp. 149–153. doi: 10.1109/SPC.2013.6735122.

[19] A. E. H. Harahap and W. Sardjono, *The Implementation of the "My Parking"*

Application as a Tool and Solution for Changing the Old Parking System to a Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR in Indonesia, vol. 1029 LNEE. 2023. doi: 10.1007/978-3-031-29078- 7_76.

[20] F. del Rosario Reyes Salazar, J. Jack Valdivia Rios, H. Teresa Ráez Martinez, and G. Henry Pachas Quispe, "IoT and new technologies to improve Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR efficiency: Systematic Review | IoT y nuevas tecnologías para mejorar la eficiencia del Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR: Revisión Sistemática," in *Proceedings of the LACCEI international Multi-conference for Engineering, Education and Technology*, 2024. doi: 10.18687/LACCEI2024.1.1.999.

[21] C. Ajchariyavanich *et al.*, "Park king: An IoT-based Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR," in *5th IEEE International Smart Cities Conference, ISC2 2019*, 2019, pp. 729–734. doi: 10.1109/ISC246665.2019.9071721.

[22] H. Santhi, G. Gopichand, and P. Gayathri, "Automated Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR using IoT," *Journal of Advanced Research in Dynamical and Control Systems*, vol. 10, no. 9 Special, pp. 1110–1115, 2018.

[23] R. Sehdehi, T. Henderson, and M. Nadeem, "A novel inductively powered intelligent parking solution," in *Proceedings - 2018 IEEE International Conference on Industrial Electronics for Sustainable Energy Systems, IESES 2018*, 2018, pp. 391–396. doi: 10.1109/IESES.2018.8349908.

[24] D. K. Sharma, S. Parr, and A. Kara, "Effectiveness of a Real-Time Parking Guidance System," in *Construction Research Congress 2022: Computer Applications, Automation, and Data Analytics - Selected Papers from Construction Research Congress 2022*, 2022, pp. 502–510. doi: 10.1061/9780784483961.053.

[25] A. Iacobescu, G. Oltean, C. Florea, M. Gordan, and B. Burtea, "OpenPk: A New Dataset for Parking Space Analysis," in *Proceedings of the 8th International Conference on Big Data, Knowledge and Control Systems Engineering, BdKCSE 2023*, 2023. doi: 10.1109/BdKCSE59280.2023.10339780.

[26] N. Shaikh, H. Shah, and H. Sharma, *IoT-Based Smart Car Parking Agent Using Raspberry Pi*, vol. 946. 2024. doi: 10.1007/978-981-97-1323-3_18.

[27] J. Sobti, K. K. Dixit, A. Alkhayyat, S. Pant, H. Kaur, and R. Anand, “Parking Wireless Assistive System for Smart City Parking Management,” in *2024 IEEE Wireless Antenna and Microwave Symposium, WAMS 2024*, 2024. doi: 10.1109/WAMS59642.2024.10527939.

[28] P. K. Malik, A. Malik, G. Sunil, A. Naim, R. K. Sharma, and S. Kathuria, “Implementation of a Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR using LoRa, STM32 Board & IoT,” in *2023 3rd International Conference on Advancement in Electronics and Communication Engineering, AECE 2023*, 2023,
pp. 135–139. doi: 10.1109/AECE59614.2023.10428151.

[29] X. Meng, H. Wan, and T. Qin, “Design of Urban Parking Space Monitoring System Based on LPWAN,” in *International Conference on Communication Technology Proceedings, ICCT*, 2020,
pp. 1029–1034. doi: 10.1109/ICCT50939.2020.9295856.

[30] D. V. Tu, P. M. Quang, H. P. Nghi, and T. N. Thinh, *An Edge AI-Based Vehicle Tracking Solution for Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPRs*, vol. 187. 2023. doi: 10.1007/978-3-031-46573-4_22.

[31] H. D. Syahla and D. Ogi, “Implementation of Secure Parking Based on Cyber-Physical System using One-time Password Gong et al. Scheme to Overcome Replay Attack,” in *8th International Conference on ICT for Smart Society: Digital Twin for Smart Society, ICISS 2021 - Proceeding*, 2021. doi: 10.1109/ICISS53185.2021.9533246.

[32] U. Venkanna, S. Sharma, B. Katiyar, and Y. Prashanth, “A Wireless Sensor Node Based Efficient Parking Slot Availability Detection System for Smart Cities,” in *IEEE International Conference on 2018 Recent Advances on Engineering, Technology and Computational Sciences, RAETCS 2018*, 2018. doi: 10.1109/RAETCS.2018.8443892.

[33] Q. Li and Q. Chen, “Design of parking guidance system in intelligent parking lot,” in *Proceedings of SPIE - The International Society for Optical Engineering*, 2022. doi: 10.1117/12.2645931.

[34] H. M. A. P. K. Bandara, J. D. C. Jayalath, A. R. S. P. Rodrigo, A. U. Bandaranayake,
Z. Maraikar, and R. G. Ragel, “Smart campus phase one: Sistem Reservasi Parkir

dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR sensor network," in *2016 Manufacturing and Industrial Engineering Symposium: Innovative Applications for Industry, MIES 2016*, 2016. doi: 10.1109/MIES.2016.7780262.

[35] V. S. Karanam, V. K. Shukla, S. Gupta, and V. K. Preetha, *Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPRs Using Image Processing*. 2023. doi: 10.1201/9781003218715-7.

[36] D. Baqaeen, R. Liang, M. Piotrowski, and A. Jung, "Cost Effective Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR on Campus," in *2022 30th International Conference on Software, Telecommunications and Computer Networks, SoftCOM 2022*, 2022. doi: 10.23919/SoftCOM55329.2022.9911417.

[37] N. Shaikh, H. Shah, and H. Sharma, IoT-Based Smart Car Parking Agent Using Raspberry Pi, vol. 946. 2024. doi: 10.1007/978-981-97-1323-3_18.

[38] V. A. Kusuma, H. Arof, S. S. Suprapto, B. Suharto, R. A. Sinulingga, and F. Ama, "An internet of things-based touchless parking system using ESP32-CAM," International Journal of Reconfigurable and Embedded Systems, vol. 12, no. 3, pp. 329–335, 2023, doi: 10.11591/ijres.v12.i3.pp329-335.

[39] L. Raju and K. Thirunavukkarasu, "Development of IoT based Smart Campus using STM32," in 15th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2024, 2024, pp. 1835–1841.

[40] C. Polprasert, C. Sruayiam, P. Pisawongprakan, and S. Teravetchakarn, "A camera-based Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR employing low-complexity deep learning for outdoor environments," in International Conference on ICT and Knowledge Engineering, 2019. doi: 10.1109/ICTKE47035.2019.8966901.

[41] D. V. Tu, P. M. Quang, H. P. Nghi, and T. N. Thinh, An Edge AI-Based Vehicle Tracking Solution for Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPRs, vol. 187. 2023. doi: 10.1007/978-3- 031-46573-4_22.

[42] C. Pham-Quoc and T. Bang, Towards a Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR with the Jetson Xavier Edge Computing Platform, vol. 187. 2023. doi: 10.1007/978-3-031-46573- 4_36.

[43] S. Jeon and D. Seo, "Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR based on an ultrasonic sensor and bluetooth

low energy in the internet of things," Journal of System and Management Sciences, vol. 9, no. 4, pp. 91–110, 2019.

[44] S. Aravinthkumar, S. Makkar, and A. A. Al-Absi, Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Management System in Shopping Malls, vol. 149. 2021. doi: 10.1007/978-981-15-7990-5_13.

[45] E. Delibašić and A. Mujčić, Implementation of Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using the Internet of Things and Artificial Intelligence, vol. 1143 LNNS. 2024. doi: 10.1007/978-3-031-71694-2_58.

[46] Y. Patel, P. Gandhi, S. Shah, S. Soman, and A. Desai, QR Code Scanner Enabled Smart Car Parking System Using Raspberry Pi with Android App Access, vol. 1214 CCIS. 2020. doi: 10.1007/978-981-15-7219-7_

[47] A. Sahfutri et al., "Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using Wireless Sensor Network System," in Proceedings of 2018 International Conference on Electrical Engineering and Computer Science, ICECOS 2018, 2019, pp. 117–122. doi: 10.1109/ICECOS.2018.8605241.

N. Shaikh, H. Shah, and H. Sharma, IoT-Based Smart Car Parking Agent Using Raspberry Pi, vol.

[48] S. Gagan and H. K. Ravi, "ParkNest - The Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using IoT," in *International Conference on Smart Systems for Applications in Electrical Sciences, ICSSES 2024*, 2024. doi: 10.1109/ICSSES62373.2024.10561362.

[49] K. V. Jobin, C. V. Jiji, and P. R. Anurenjan, "Automatic number plate recognition system using modified stroke width transform," in *2013 4th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics, NCVPRIPG 2013*, 2013. doi: 10.1109/NCVPRIPG.2013.6776246.

[50] L. Albuquerque, C. Coelho, F. M. P. Costa, L. L. Ferrás, and A. J. Soares, "Improving Public Parking by Using Artificial Intelligence," in *AIP Conference Proceedings*, 2023. doi: 10.1063/5.0162231.

[51] W. A. Jabbar, C. W. Wei, N. A. A. M. Azmi, and N. A. Haironnazli, "An IoT Raspberry Pi-based parking management system for smart campus[Formula presented]," *Internet of Things (Netherlands)*, vol. 14, 2021, doi: 10.1016/j.iot.2021.100387.

[52] A. Sahfutri *et al.*, “Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using Wireless Sensor Network System,” in *Proceedings of 2018 International Conference on Electrical Engineering and Computer Science, ICECOS 2018*, 2019, pp. 117–122. doi: 10.1109/ICECOS.2018.8605241.

[53] M. Gupta, R. Kumar, A. Sood, G. Kaur, and S. Rastogi, “Automatic Number plate detection for law enforcement using optical recognition system,” *Fusion: Practice and Applications*, vol. 6, no. 2, pp. 50–56, 2021, doi: 10.54216/FPA.060202.

[54] B. Satya, D. Manongga, Hendry, and A. Aminuddin, “Optimized YOLOv8 for Automatic License Plate Recognition on Resource Constrained Devices,” *Engineering, Technology and Applied Science Research*, vol. 15, no. 2, pp. 21976–21981, 2025, doi: 10.48084/etasr.9983.

[55] M. Dixit, A. Priya, G. Haldiya, A. Priya, and B. Kumar, “Smart Car Parking System using Arduino,” in *2023 IEEE International Students’ Conference on Electrical, Electronics and Computer Science, SCEECS 2023*, 2023. doi: 10.1109/SCEECS57921.2023.10063121.

[56] A. Tupsounder, R. Patwari, R. Ambati, A. Chavarkar, and K. Shirsat, “Automatic Recognition of Non-standard Number Plates using YOLOv8,” in *Proceedings of the 18th INDIAcom; 2024 11th International Conference on Computing for Sustainable Global Development, INDIACom 2024*, 2024, pp. 314–319. doi: 10.23919/INDIACom61295.2024.10498740.

[57] N. Bhaskar, P. T. Waghmare, A. K. Puttur, and O. V. Pereira, *Advanced Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR management system integrating deep learning and optical character recognition*. 2025. doi: 10.1201/9781003616252-59.

[58] F. Lubis *et al.*, “Integrated Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using Internet of Things (IoT) and Digital Image Processing with Faster Region Based Convolutional Neural Network (Faster R-CNN) and Optical Character Recognition (OCR),” in *Proceedings - ELTICOM 2024: 8th International Conference on Electrical, Telecommunication and Computer Engineering: Tech-Driven Innovations for Global Organizational Resilience*, 2024, pp. 342–348. doi: 10.1109/ELTICOM64085.2024.10864954.

[59] I. Valova, T. Kaneva, and N. Valov, “Conceptual Model of a Parking System with Automatic License Plate Recognition,” in *IEEE International Symposium for*

Design and Technology of Electronics Packages, SIITME - Conference Proceedings, 2024, pp. 168–173. doi: 10.1109/SIITME63973.2024.10814907.

[60] S. Aswin, L. Ruthra, G. Sudheep Jashwanth, and R. Anand, "Development and Implementation of a Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR in Coimbatore, Tamil Nadu: Enhancing Urban Mobility and Efficiency," in *2024 4th International Conference on Artificial Intelligence and Signal Processing, AISP 2024*, 2024. doi: 10.1109/AISP61711.2024.10870665.

[61] D. Pathak and A. Verma, "Efficient and improved Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR based on IoT," *International Journal of Emerging Technology and Advanced Engineering*, vol. 10, no. 3, pp. 22–27, 2020.

[62] V. N. Sulistyawan, N. A. Salim, F. G. Abas, and N. Aulia, "Parking Tracking System Using Ultrasonic Sensor HC-SR04 and NODEMCU ESP8266 Based IoT," in *Iop Conference Series Earth and Environmental Science*, 2023. doi: 10.1088/1755-1315/1203/1/012028.

[63] A. Sahfutri *et al.*, "Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Using Wireless Sensor Network System," in *Proceedings of 2018 International Conference on Electrical Engineering and Computer Science Icecos 2018*, 2019, pp. 117–122. doi: 10.1109/ICECOS.2018.8605241.

[64] S. The, E. E. Mathias, J. F. Valesco, K. W. Noverianto, R. Elta, and B. Juarto, "Accuracy Evaluation of Infrared and Ultrasonic Sensors for Car Parking Systems with Confusion Matrix and RMSE," in *Proceedings 2023 3rd International Conference on Electronic and Electrical Engineering and Intelligent System Responsible Technology for Sustainable Humanity Ice3is 2023*, 2023, pp. 448–453. doi: 10.1109/ICE3IS59323.2023.10335280.

[65] M. Talib, J. Suad, and A. H. Y. Al-Noori, "YOLOv8-CAB: Improved YOLOv8 for Real-time Object Detection," *Karbala International Journal of Modern Science*, vol. 10, no. 1, pp. 56–68, 2024, doi: 10.33640/2405-609X.3339.

[66] Z. Wang, K. Zhang, F. Wu, and H. Lv, "YOLO-PEL: The Efficient and Lightweight Vehicle Detection Method Based on YOLO Algorithm," *Sensors*, vol. 25, no. 7, 2025, doi: 10.3390/s25071959.

[67] M. Gupta, R. Kumar, A. Sood, G. Kaur, and S. Rastogi, "Automatic Number plate

detection for law enforcement using optical recognition system," *Fusion Practice and Applications*, vol. 6, no. 2, pp. 50–56, 2021, doi: 10.54216/FPA.060202.

[68] L. Wang, J. Chen, C. Zhang, X. Cao, and J. Chen, "Vehicle delay model applied to dynamic and static traffic impact analysis of large parking lots," *Applied Sciences Switzerland*, vol. 11, no. 20, 2021, doi: 10.3390/app11209771.

[69] B. Potter and G. McGraw, "Software security testing," *IEEE Secur Priv*, vol. 2, no. 5, pp. 81–85, 2004, doi: 10.1109/MSP.2004.84.

[70] B. M. Tummala, M. D. Prem Kumar, and S. Nagurbasha, "Real-Time Parking Slot Detection and Enhanced Security System for Public Parking using IoT," in *Proceedings of 8th International Conference on Inventive Computation Technologies Icict 2025*, 2025, pp. 1779–1785. doi: 10.1109/ICICT64420.2025.11004858.

[71] N. Shaikh, H. Shah, and H. Sharma, *IoT-Based Smart Car Parking Agent Using Raspberry Pi*, vol. 946. 2024. doi: 10.1007/978-981-97-1323-3_18.

[72] S. Aswath *et al.*, "Smart Car Parking System with Online Reservation," in *Procedia Computer Science*, 2025, pp. 2777–2786. doi: 10.1016/j.procs.2025.04.538.

[73] S. Kumara, N. H. Prasad, M. Monika, H. Tuli, S. Supreeth, and S. Rohith, "Smart Vehicle Parking System on Fog Computing for Effective Resource Management," in *International Conference on Applied Intelligence and Sustainable Computing Icaisc 2023*, 2023. doi: 10.1109/ICAISC58445.2023.10201108.

[74] P. Degerman, J. Pohl, and M. Sethson, "Ultrasonic sensor modeling for automatic parallel parking systems in passenger cars," *SAE Technical Papers*, 2007, doi: 10.4271/2007-01-1103.

[75] G. A. Korn, "Real statistical experiments can use simulation-package software," *Simul Model Pract Theory*, vol. 13, no. 1, pp. 39–54, 2005, doi: 10.1016/j.simpat.2004.08.003.

[76] H. Han, K. Kim, S. Jung, and Y. Chang, "Performance Evaluation on the Parallel Processing System with the Raspberry Pi 4," in *Proceedings 2022 International Conference on Computational Science and Computational Intelligence Csci 2022*, 2022, pp. 1372–1374. doi: 10.1109/CSCI58124.2022.00246.

[77] S. A. A. Bakar, M. H. A. Aziz, N. R. Ong, J. B. Alcain, W. M. W. N. Haimi, and Z. Sauli, "Underwater detection by using ultrasonic sensor," in *Aip Conference Proceedings*, 2017. doi: 10.1063/1.5002499.

[78] L. M. Dagsa, C. J. Agosila, and J. T. Dellosa, "Internet-of-Things (IoT)-Based

Parking Prototype System," in *2024 4th International Conference on Advancement in Electronics and Communication Engineering Aece 2024*, 2024, pp. 1104–1110. doi: 10.1109/AECE62803.2024.10911111.

[79] D. Zhang *et al.*, "Optimization of YOLOv8 model based on pruning," in *Proceedings of SPIE the International Society for Optical Engineering*, 2024. doi: 10.1117/12.3049687.

[80] S. Xu and S. Shue, "Real-Time Object Detection Algorithm Performance on Edge Computing Devices," in *2024 International Symposium on Networks Computers and Communications Isncc 2024*, 2024. doi: 10.1109/ISNCC62547.2024.10759057.

[81] W. Phakditha *et al.*, "Flame Detection Based on Deep Learning," in *Proceedings Ieecon 2025 2025 13th International Electrical Engineering Congress Carbon Neutrality Challenges and Solutions Based on Sustainable Power of Nature*, 2025. doi: 10.1109/iEECON64081.2025.10987849.

[82] A. Badr, M. M. Abdel, A. M. Thabet, and A. M. Abdelsadek, "Automatic number plate recognition system," *Annals of the University of Craiova Mathematics and Computer Science Series*, vol. 38, no. 1, pp. 62–71, 2011.

[83] W.-C. Wu, "A QR code-based on-street parking fee payment mechanism," in *Proceedings 2014 10th International Conference on Intelligent Information Hiding and Multimedia Signal Processing Iih Msp 2014*, 2014, pp. 106–109. doi: 10.1109/IIH-MSP.2014.33.

[84] S. Avinash, S. Muthukrishnan, and R. Aishwarya, "Enhancing IoT ECO System - Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR," in *2025 IEEE International Students Conference on Electrical Electronics and Computer Science Sceecs 2025*, 2025. doi: 10.1109/SCEECS64059.2025.10941013.

[85] M. Pallawabonang, M. Adnan, A. Mukmin, S. Zuhriyah, E. Prakasa, and Yuyun, "Leveraging YOLOv8 for Real-Time Parking Space Detection," in *2024 Beyond Technology Summit on Informatics International Conference Bts I2c 2024*, 2024, pp. 439–444. doi: 10.1109/BTS-I2C63534.2024.10942123.

[86] T. Gao and J. Suto, "Acceleration of Image Classification and Object Tracking by the Intel Neural Compute Stick 2 with Power Efficiency Evaluation on Raspberry Pi 4B," *Sensors*, vol. 25, no. 6, 2025, doi: 10.3390/s25061794.

[87] N. Anggraini, A. F. Zein, L. K. Wardhani, and K. Fadhillah, "Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR

With Background Subtraction Algorithm Using Progressive Web Apps (PWAs) Technology on Raspberry Pi 4," in *2023 11th International Conference on Cyber and IT Service Management Citsm 2023*, 2023. doi: 10.1109/CITSM60085.2023.10455254.

[88] F. A. A. Aziz, S. Z. M. Muji, M. H. A. Wahab, Z. Tukiran, C. Uttraphan, and N. Sudin, "Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR Mobile Application using Ultrasonic Detector," *International Journal of Integrated Engineering*, vol. 14, no. 3, pp. 70–79, 2022, doi: 10.30880/ijie.2022.14.03.008.

[89] S. Aswin, L. Ruthra, G. Sudheep Jashwanth, and R. Anand, "Development and Implementation of a Simulasi Sistem Reservasi Parkir dan Pembukaan Palang Otomatis Menggunakan QR dan ANPR in Coimbatore, Tamil Nadu: Enhancing Urban Mobility and Efficiency," in *2024 4th International Conference on Artificial Intelligence and Signal Processing Aisp 2024*, 2024. doi: 10.1109/AISP61711.2024.10870665.