

- Akpinar, S. (2016). Hybrid large neighbourhood search algorithm for capacitated vehicle routing problem. *Expert Systems with Applications*, 61, 28–38. <https://doi.org/10.1016/j.eswa.2016.05.023>
- Angelelli, E., & Mansini, R. (2002). The Vehicle Routing Problem with Time Windows and Simultaneous Pick-up and Delivery. *Quantitative Approaches to Distribution Logistics and Supply Chain Management*, 249–267.
- Archetti, C., & Speranza, M. G. (2008). The split delivery vehicle routing problem: a survey. In *Operations Research/ Computer Science Interfaces Series* (Vol. 43, pp. 103–122). <https://doi.org/10.1007/978-0-387-77778-8>
- Astra Daihatsu. (2023). *Mobil Muatan Banyak Ini Dia Kapasitas Tangki Bensin Gran Max*. <https://www.astra-daihatsu.id/berita-dan-tips/kapasitas-tangki-bensin-gran-max>
- Avci, M., & Topaloglu, S. (2016). A hybrid metaheuristic algorithm for heterogeneous vehicle routing problem with simultaneous pickup and delivery. *Expert Systems with Applications*, 53, 160–171. <https://doi.org/10.1016/j.eswa.2016.01.038>
- Badan Pusat Statistik Provinsi D.I. Yogyakarta. (2024). *Upah Minimum Kabupaten/Upah Minimum Provinsi di DI Yogyakarta (Rupiah/Bulan), 2022-2024*. Badan Pusat Statistik Provinsi D.I. Yogyakarta. <https://yogyakarta.bps.go.id/indicator/6/272/1/upah-minimum-kabupaten-upah-minimum-provinsi-di-di-yogyakarta.html>
- Baños, R., Ortega, J., Gil, C., Fernández, A., & De Toro, F. (2013). A Simulated Annealing-based parallel multi-objective approach to vehicle routing problems with time windows. *Expert Systems with Applications*, 40(5), 1696–1707. <https://doi.org/10.1016/j.eswa.2012.09.012>
- Birim, Ş. (2016). Vehicle Routing Problem with Cross Docking: A Simulated Annealing Approach. *Procedia - Social and Behavioral Sciences*, 235(October), 149–158. <https://doi.org/10.1016/j.sbspro.2016.11.010>
- Cai, J., Zhu, Q., Lin, Q., Ma, L., Li, J., & Ming, Z. (2023). A survey of dynamic pickup and delivery problems. *Neurocomputing*, 554. <https://doi.org/10.1016/j.neucom.2023.126631>

- Cappanera, P., & Scutellà, M. G. (2015). Joint Assignment , Scheduling , and Routing Models Home Care Optimization : A Pattern-Based Approach. *Transportation Science*, 49(4), 830–852.
- Chaieb, M., & Ben Sassi, D. (2021). Measuring and evaluating the Home Health Care Scheduling Problem with Simultaneous Pick-up and Delivery with Time Window using a Tabu Search metaheuristic solution. *Applied Soft Computing*, 113, 107957. <https://doi.org/10.1016/j.asoc.2021.107957>
- Dantzig, G. B., & Ramser, J. H. (1959). The Truck Dispatching Problem. *Management Science*, 6(1), 80–91. <https://www.jstor.org/stable/2627477>
- Delahaye, D., Chaimatanan, S., & Mongeau, M. (2019). *Simulated annealing : From basics to applications To cite this version.*
- Dumez, D., Lehuédé, F., & Péton, O. (2021). A large neighborhood search approach to the vehicle routing problem with delivery options. In *Transportation Research Part B: Methodological* (Vol. 144). <https://doi.org/10.1016/j.trb.2020.11.012>
- Emadikhiav, M., Bergman, D., & Day, R. (2020). Consistent Routing and Scheduling with Simultaneous Pickups and Deliveries. *Production and Operations Management*, 29(8), 1937–1955. <https://doi.org/10.1111/poms.13200>
- Faiz, T. I., Vogiatzis, C., & Noor-E-Alam, M. (2019). A column generation algorithm for vehicle scheduling and routing problems. *Computers and Industrial Engineering*, 130(August 2018), 222–236. <https://doi.org/10.1016/j.cie.2019.02.032>
- Fleischmann, B. (1990). *The vehicle routing problem with multiple use of vehicles The vehicle routing problem with multiple use of the vehicles Scope and Purpose. June.* <https://www.researchgate.net/publication/221704650>
- Foroutan, R. A., Rezaeian, J., & Mahdavi, I. (2020). Green vehicle routing and scheduling problem with heterogeneous fleet including reverse logistics in the form of collecting returned goods. *Applied Soft Computing Journal*, 94, 106462. <https://doi.org/10.1016/j.asoc.2020.106462>
- François, V., Arda, Y., Crama, Y., & Laporte, G. (2016). Large neighborhood search for multi-trip vehicle routing. *European Journal of Operational Research*, 255(2), 422–441. <https://doi.org/10.1016/j.ejor.2016.04.065>
- Gao, J., Zhen, L., & Wang, S. (2023). Multi-trucks-and-drones cooperative pickup and delivery problem. *Transportation Research Part C: Emerging Technologies*, 157(October), 104407. <https://doi.org/10.1016/j.trc.2023.104407>
- Goetschalckx, M., & Jacobs-Blecha, C. (1989). The vehicle routing problem with

[https://doi.org/https://doi.org/10.1016/0377-2217\(89\)90057-X](https://doi.org/https://doi.org/10.1016/0377-2217(89)90057-X)

Grangier, P., Gendreau, M., Lehuédé, F., & Rousseau, L. M. (2017). A matheuristic based on large neighborhood search for the vehicle routing problem with cross-docking. *Computers and Operations Research*, 84, 116–126. <https://doi.org/10.1016/j.cor.2017.03.004>

Hannan, M. A., Akhtar, M., Begum, R. A., Basri, H., Hussain, A., & Scavino, E. (2018). Capacitated vehicle-routing problem model for scheduled solid waste collection and route optimization using PSO algorithm. *Waste Management*, 71, 31–41. <https://doi.org/10.1016/j.wasman.2017.10.019>

Hussain, K., Mohd Salleh, M. N., Cheng, S., & Shi, Y. (2019). Metaheuristic research: a comprehensive survey. *Artificial Intelligence Review*, 52(4), 2191–2233. <https://doi.org/10.1007/s10462-017-9605-z>

Jharkharia, S., & Das, C. (2020). Vehicle routing analyses with integrated order picking and delivery problem under carbon cap and trade policy. *Management Research Review*, 43(2), 223–243. <https://doi.org/10.1108/MRR-01-2019-0013>

Kaboudani, Y., Ghodsypour, S. H., Kia, H., & Shahmardan, A. (2020). Vehicle routing and scheduling in cross docks with forward and reverse logistics. *Operational Research*, 20(3), 1589–1622. <https://doi.org/10.1007/s12351-018-0396-z>

Kata Data Insight Centre. (2022). Indonesia Carbon Trading. In *Kata Data Insight Center* (Issue Agustus).

Kirkpatrick, S., Gelatt, C. D., & Vecchi, M. P. (1983). Optimization by simulated annealing. *Science*, 220(4598), 671–680. <https://doi.org/10.1126/science.220.4598.671>

Koç, Ç., Laporte, G., & Tükenmez, İ. (2020). A review of vehicle routing with simultaneous pickup and delivery. *Computers and Operations Research*, 122. <https://doi.org/10.1016/j.cor.2020.104987>

Konstantakopoulos, G. D., Gayialis, S. P., & Kechagias, E. P. (2022). Vehicle routing problem and related algorithms for logistics distribution: a literature review and classification. *Operational Research*, 22(3), 2033–2062. <https://doi.org/10.1007/s12351-020-00600-7>

Lin, C., Choy, K. L., Ho, G. T. S., & Ng, T. W. (2014). A Genetic Algorithm-based optimization model for supporting green transportation operations. *Expert Systems with Applications*, 41(7), 3284–3296. <https://doi.org/10.1016/j.eswa.2013.11.032>

Lombardi, M., & Schaus, P. (2014). Cost Impact Guided LNS. *11th International Conference CPAIOR*.

Lu, Q., & Dessouky, M. (2004). An exact algorithm for the multiple vehicle pickup and delivery problem. *Transportation Science*, 38(4), 503–514. <https://doi.org/10.1287/trsc.1030.0040>

Lutz, R. (2014). *Adaptive Large Neighborhood Search Heuristic algorithms*. Ulm University.

Mahjoob, M., Fazeli, S. S., Tavassoli, L. S., Mirmozaffari, M., & Milanlouei, S. (2021). A green multi-period inventory routing problem with pickup and split delivery: A case study in flour industry. *Sustainable Operations and Computers*, 2(April), 64–70. <https://doi.org/10.1016/j.susoc.2021.04.002>

Mahmoudi, N., Sadegheih, A., Hosseini-Nasab, H., & Zare, H. K. (2023). Routing and scheduling decisions for a single-hub same-day delivery network. *Journal of Engineering Research (Kuwait)*, 11(3), 198–211. <https://doi.org/10.1016/j.jer.2023.100130>

Majidi, S., Hosseini-Motlagh, S. M., Yaghoubi, S., & Jokar, A. (2017). Fuzzy green vehicle routing problem with simultaneous pickup-delivery and time windows. *RAIRO - Operations Research*, 51(4), 1151–1176. <https://doi.org/10.1051/ro/2017007>

Mangiaracina, R., Perego, A., Seghezzi, A., & Tumino, A. (2019). Innovative solutions to increase last-mile delivery efficiency in B2C e-commerce: a literature review. *International Journal of Physical Distribution and Logistics Management*, 49(9), 901–920. <https://doi.org/10.1108/IJPDLM-02-2019-0048>

Mekonenn, N., & Balasundaram. (2018). Optimization of Vehicle Routing in Simultaneous Pickup and Delivery Service: A Case study. *International Journal of Advances in Scientific Research and Engineering*, 4(12), 72–80. <https://doi.org/10.31695/ijasre.2018.33007>

Mingozi, A., Roberti, R., & Toth, P. (2013). An exact algorithm for the multitrip vehicle routing problem. *INFORMS Journal on Computing*, 25(2), 193–207. <https://doi.org/10.1287/ijoc.1110.0495>

Mingyong, L., & Erbao, C. (2010). An improved differential evolution algorithm for vehicle routing problem with simultaneous pickups and deliveries and time windows. *Engineering Applications of Artificial Intelligence*, 23(2), 188–195. <https://doi.org/10.1016/j.engappai.2009.09.001>

<https://www.jpmmorgan.com/solutions/treasury-payments/global-ecommerce-trends-report>

Morrison, D. R., Jacobson, S. H., Sauppe, J. J., & Sewell, E. C. (2016). Branch-and-bound algorithms: A survey of recent advances in searching, branching, and pruning. *Discrete Optimization*, 19, 79–102. <https://doi.org/10.1016/j.disopt.2016.01.005>

Noor, N., Wihanesta, R., Rizki, M., Syahputri, J., & Gan, P. (2021). Indonesia Zero Emissions Application (EMISI): Methodology for Calculating Individual Emissions from Goods Deliveries, and Marine and Aviation Transport. *World Resources Institute, December*, 1–32. <https://doi.org/10.46830/writn.20.00150>

Olariu, E. F., & Frasinaru, C. (2020). Multiple-depot vehicle scheduling problem heuristics. *Procedia Computer Science*, 176, 241–250. <https://doi.org/10.1016/j.procs.2020.08.026>

Olgun, B., Koç, Ç., & Altıparmak, F. (2021). A hyper heuristic for the green vehicle routing problem with simultaneous pickup and delivery. *Computers and Industrial Engineering*, 153(November 2020). <https://doi.org/10.1016/j.cie.2020.107010>

Pertamina. (2024). *Harga BBM Pertamina*. <https://mypertamina.id/fuels-harga>

Pisinger, D., & Ropke, S. (2019). Large neighborhood search. *International Series in Operations Research and Management Science*, 272, 99–127. https://doi.org/10.1007/978-3-319-91086-4_4

Razavi, S., & Gupta, H. V. (2015). What do we mean by sensitivity analysis? The need for comprehensive characterization of “global” sensitivity in Earth and Environmental systems models. *Water Resources Research*, 3070–3092. <https://doi.org/10.1002/2014WR016527>

Said, S. (1987). *The integration of routing into the location-allocation and vehicle composition problems*. University of Lancaster.

Salavati-Khoshghalb, M., Gendreau, M., Jabali, O., & Rei, W. (2019). An exact algorithm to solve the vehicle routing problem with stochastic demands under an optimal restocking policy. *European Journal of Operational Research*, 273(1), 175–189. <https://doi.org/10.1016/j.ejor.2018.07.039>

Santini, A. (2019). An adaptive large neighbourhood search algorithm for the orienteering problem. *Expert Systems with Applications*, 123, 154–167. <https://doi.org/10.1016/j.eswa.2018.12.050>

Savelsbergh, M. W. P., & Sol, M. (1995). The General Pickup and Delivery Problem.

- Schubert, D., Kuhn, H., & Holzapfel, A. (2021). Same-day deliveries in omnichannel retail: Integrated order picking and vehicle routing with vehicle-site dependencies. *Naval Research Logistics*, 68(6), 721–744. <https://doi.org/10.1002/nav.21954>
- Shahabi-Shahmiri, R., Asian, S., Tavakkoli-Moghaddam, R., Mousavi, S. M., & Rajabzadeh, M. (2021). A routing and scheduling problem for cross-docking networks with perishable products, heterogeneous vehicles and split delivery. *Computers and Industrial Engineering*, 157(February), 107299. <https://doi.org/10.1016/j.cie.2021.107299>
- Shojaee G, K., Shakouri G, H., & . Menhaj, M. . (2011). A Mushy State Simulated Annealing. *Amirkabir International Journal of Modeling, Identification, Simulation & Control*, 43(2), 59–70.
- Si, C., Golden, B., & Wasil, E. (2007). The split delivery vehicle routing problem: applications, algorithms, test problems, and computational results. *Networks*, 49(4), 318–329. <https://doi.org/10.1002/net.20181>
- Sitek, P., Wikarek, J., Rutczyńska-Wdowiak, K., Bocewicz, G., & Banaszak, Z. (2021). Optimization of capacitated vehicle routing problem with alternative delivery, pick-up and time windows: A modified hybrid approach. *Neurocomputing*, 423, 670–678. <https://doi.org/10.1016/j.neucom.2020.02.126>
- Soysal, M., Çimen, M., & Belbağ, S. (2020). Pickup and delivery with electric vehicles under stochastic battery depletion. *Computers and Industrial Engineering*, 146(321622), 106512. <https://doi.org/10.1016/j.cie.2020.106512>
- Soysal, M., Çimen, M., & Demir, E. (2018). On the mathematical modeling of green one-to-one pickup and delivery problem with road segmentation. *Journal of Cleaner Production*, 174, 1664–1678. <https://doi.org/10.1016/j.jclepro.2017.11.040>
- Srivastava, A., & Thaichon, P. (2023). What motivates consumers to be in line with online shopping?: a systematic literature review and discussion of future research perspectives. *Asia Pacific Journal of Marketing and Logistics*, 35(3), 687–725. <https://doi.org/10.1108/APJML-10-2021-0777>
- Sun, P., Veelenturf, L. P., Hewitt, M., & Van Woensel, T. (2020). Adaptive large neighborhood search for the time-dependent profitable pickup and delivery problem with time windows. *Transportation Research Part E: Logistics and Transportation Review*, 138(April), 101942. <https://doi.org/10.1016/j.tre.2020.101942>
- Tang, J., Yu, Y., & Li, J. (2015). An exact algorithm for the multi-trip vehicle routing

Transportation Research Part E: Logistics and Transportation Review, 73, 114–132. <https://doi.org/10.1016/j.tre.2014.11.001>

Tavakkoli-Moghaddam, R., Memari, P., & Talebi, E. (2018). A bi-objective location-allocation problem of temporary emergency stations and ambulance routing in a disaster situation. *Proceedings of the 2018 International Conference on Optimization and Applications, ICOA 2018*, 1–4. <https://doi.org/10.1109/ICOA.2018.8370579>

Theeraviriya, C., Pitakaso, R., Sillapasa, K., & Kaewman, S. (2019). Location decision making and transportation route planning considering fuel consumption. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(2), 27. <https://doi.org/10.3390/joitmc5020027>

Thomas, C., Kameugne, R., & Schaus, P. (2020). Insertion sequence variables for hybrid routing and scheduling problems. *International Conference on Integration of Constraint Programming, Artificial Intelligence, and Operations Research*, 457–474.

Toth, P., & Vigo, D. (Eds.). (2002). *The Vehicle Routing Problem*. Society for Industrial and Applied Mathematics (SIAM).

Wang, C., Mu, D., Zhao, F., & Sutherland, J. W. (2015). A parallel simulated annealing method for the vehicle routing problem with simultaneous pickup-delivery and time windows. *Computers and Industrial Engineering*, 83, 111–122. <https://doi.org/10.1016/j.cie.2015.02.005>

Wang, C., Zhao, F., Mu, D., & Sutherland, J. W. (2013). Simulated annealing for a vehicle routing problem with simultaneous pickup-delivery and time windows. *20th Advances in Production Management Systems (APMS)*, 415, 170–177. https://doi.org/10.1007/978-3-642-41263-9_21

Wang, Y., Ma, X., Lao, Y., Wang, Y., & Mao, H. (2013). Vehicle routing problem: simultaneous deliveries and pickups with split loads and time windows. *Transportation Research Record*, 2378, 120–128. <https://doi.org/10.3141/2378-13>

Wassan, N., Wassan, N., Nagy, G., & Salhi, S. (2017). The Multiple Trip Vehicle Routing Problem with Backhauls: Formulation and a Two-Level Variable Neighbourhood Search. *Computers and Operations Research*, 78, 454–467. <https://doi.org/10.1016/j.cor.2015.12.017>

Wibowo, W. A. R. M. (2023). *Kualitas Pelayanan Pt . Pos Indonesia KCU Semarang*.

- Wollinger, D., & Salazar-González, J. J. (2021). The Pickup and Delivery Problem with Split Loads and Transshipments: A Branch-and-Cut Solution Approach. *European Journal of Operational Research*, 289(2), 470–484. <https://doi.org/10.1016/j.ejor.2020.07.032>
- Xiao, Y., Zhou, J., Zhu, X., & Yu, F. (2022). Research on Optimization Method and Algorithm Design of Green Simultaneous Pick-up and Delivery Vehicle Scheduling under Uncertain Demand. *Sustainability (Switzerland)*, 14(19). <https://doi.org/10.3390/su141912736>
- Yip, P. P. C., & Pao, Y. H. (1995). Combinatorial Optimization with Use of Guided Evolutionary Simulated Annealing. *IEEE Transactions on Neural Networks*, 6(2), 290–295. <https://doi.org/10.1109/72.363466>
- Yu, V. F., Aloina, G., Jodiawan, P., Gunawan, A., & Huang, T. C. (2023). The vehicle routing problem with simultaneous pickup and delivery and occasional drivers. *Expert Systems with Applications*, 214(October 2022), 119118. <https://doi.org/10.1016/j.eswa.2022.119118>
- Yu, V. F., Redi, A. A. N. P., Hidayat, Y. A., & Wibowo, O. J. (2017). A simulated annealing heuristic for the hybrid vehicle routing problem. *Applied Soft Computing Journal*, 53, 119–132. <https://doi.org/10.1016/j.asoc.2016.12.027>
- Yu, V. F., Susanto, H., Jodiawan, P., Ho, T. W., Lin, S. W., & Huang, Y. T. (2022). A Simulated Annealing Algorithm for the Vehicle Routing Problem With Parcel Lockers. *IEEE Access*, 10, 20764–20782. <https://doi.org/10.1109/ACCESS.2022.3152062>
- Zhang, Z., Che, Y., & Liang, Z. (2024). Split-demand multi-trip vehicle routing problem with simultaneous pickup and delivery in airport baggage transit. *European Journal of Operational Research*, 312(3), 996–1010. <https://doi.org/10.1016/j.ejor.2023.07.028>