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DAFTAR PUSTAKA

Bai, Y., Wu, Y., Zhang, Z., et al. (2024). Molecular weight insight into critical component contributing to reverse osmosis membrane fouling in wastewater reclamation. *npj Clean Water*, *7*, 62. https://doi.org/10.1038/s41545-024-00359-w

Chiandussi, G., Codegone, M., Ferrero, S., & Varesio, F. E. (2012). Comparison of multi-objective optimization methodologies for engineering applications. *Computers & Mathematics with Applications*, *63*(5), 912–942. https://doi.org/10.1016/j.camwa.2011.11.057

Cichocka, J., & Browne, W. (2016). *Multicriteria optimization in architectural design goal-oriented methods and computational morphogenesis*. Oficyna Wydawnicza Politechniki Wrocawskiej.

Coello, C. A. (2002). Theoretical and numerical constraint-handling techniques used with evolutionary algorithms: A survey of the state of the art. *Computer Methods in Applied Mechanics and Engineering*, *191*(11-12), 1245–1287. https://doi.org/10.1016/S0045-7825(01)00323-1

Coello, C. A. C., Lamont, G. B., & Van Veldhuizen, D. A. (2007). *Evolutionary algorithms for solving multi-objective problems*. Springer Science & Business Media.

CTCI Advanced Systems Inc. (2024, November). *UF/RO Operation Optimization: Operational Data Analysis and Water Production Maximization* (Internal Technical Report) (Prepared by Hao-Jia Hong. Internal report on ultrafiltration/reverse osmosis system optimization). CTCI Advanced Systems Inc. Tainan Science Park Reclaimed Water Plant, Taiwan.

Deb, K. (2002). *Multi-objective optimization using evolutionary algorithms*. John Wiley & Sons.

Deb, K., Pratap, A., Agarwal, S., & Meyarivan, T. (2002). A fast and elitist multiobjective genetic algorithm: NSGA-II. *IEEE Transactions on Evolutionary Computation*, *6*(2), 182–197. https://doi.org/10.1109/4235.996017

Ding, S.-H., & Kamaruddin, S. (2014). Maintenance policy optimization—literature review and directions. *The International Journal of Advanced Manufacturing Technology*, *76*, 1263–1283.

Fane, A. G., Wang, R., & Hu, M. X. (2015). Synthetic membranes for water purification: Status and future. *Angewandte Chemie International Edition*, *54*(11), 3368–3386. https://doi.org/10.1002/anie.201409783

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Gao, W., Liang, H., Ma, J., Han, M., Chen, Z.-l., Han, Z.-s., & Li, G.-b. (2011). Membrane fouling control in ultrafiltration technology for drinking water treatment: A review. *Desalination*, *272*(1-3), 1–8. https://doi.org/10.1016/j.desal.2011.01.051

Geramifard, O., Xu, J.-X., Zhou, J.-H., & Li, X. (2014). Physically meaningful models for fault detection and diagnostics in modern induction motors. *IEEE Transactions on Industrial Electronics*, *61*(10), 5695–5703.

Glover, F., & Kochenberger, G. A. (Eds.). (2003). *Handbook of Metaheuristics* (Vol. 57). Springer. https://doi.org/10.1007/b101874

Judd, S., & Jefferson, B. (2003). Membrane for Industrial Wastewater Recovery and Re-Use. *Filtration and Separation*, *40*, 38–40. https://doi.org/10.1016/S0015-1882(03)00731-6

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

Larsen, M. M., & Pisinger, D. (2019). A large neighborhood search heuristic for the maintenance scheduling problem. *Journal of Scheduling*, *22*(4), 421–439.

Li, W., Wang, P., Xu, Y., Pan, L., Nie, C., & Yang, B. (2024). Multi-objective optimization of municipal solid waste collection based on adaptive large neighborhood search. *Electronics*, *14*(1), 103. https://doi.org/10.3390/electronics14010103

Li, Y., Xia, T., Chen, Z., & Pan, E. (2023). Multiple degradation-driven preventive maintenance policy for serial-parallel multi-station manufacturing systems. *Reliability Engineering & System Safety*, *230*, 108905. https://doi.org/10.1016/j.ress.2022.108905

Liu, J., Sun, B., Li, G., & Chen, Y. (2024). Multi-objective adaptive large neighbourhood search algorithm for dynamic flexible job shop schedule problem with transportation resource. *Engineering Applications of Artificial Intelligence*, *132*, 107917. https://doi.org/10.1016/j.engappai.2024.107917

Luan, F., Zhao, H., Liu, S. Q., He, Y., & Tang, B. (2023). Enhanced NSGA-II for multi-objective energy-saving flexible job shop scheduling. *Sustainable Computing: Informatics and Systems*, *39*, 100901. https://doi.org/https://doi.org/10.1016/j.suscom.2023.100901

Maiyar, L. M., & Thakkar, J. J. (2024). Multi-objective optimisation of maintenance scheduling for manufacturing systems with progressive degradation. *International Journal of Production Research*, *62*(5), 1–22.

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Mara, S. T. W., Norcahyo, R., Jodiawan, P., Lusiantoro, L., & Rifai, A. P. (2022). A survey of adaptive large neighborhood search algorithms and applications. *Computers Operations Research*, *146*, 105903. https://doi.org/https://doi.org/10.1016/j.cor.2022.105903

Mobley, R. K. (2002). *An Introduction to Predictive Maintenance* (2nd). Butterworth-Heinemann.

Nakagawa, T. (2005). *Maintenance Theory of Reliability*. Springer.

Rardin, R. L. (1998). *Optimization in Operations Research* (1st). Pearson.

Reijnen, R., Zhang, Y., Leus, R., & Woeginger, G. (2022). Online Control of Adaptive Large Neighborhood Search using Deep Reinforcement Learning. *arXiv preprint arXiv:2211.00759*. https://arxiv.org/abs/2211.00759

Rifai, A. P., Nguyen, H.-T., & Dawal, S. Z. M. (2016). Multi-objective adaptive large neighborhood search for distributed reentrant permutation flow shop scheduling. *Applied Soft Computing*, *40*, 42–57. https://doi.org/10.1016/j.asoc.2015.11.034

Ropke, S., & Pisinger, D. (2006). An adaptive large neighborhood search heuristic for the pickup and delivery problem with time windows. *Transportation Science*, *40*(4), 455–472. https://doi.org/10.1287/trsc.1050.0135

Singh, R. (2015). Chapter 2 - Water and Membrane Treatment. In R. Singh (Ed.), *Membrane Technology and Engineering for Water Purification (Second Edition)* (Second Edition, pp. 81–178). Butterworth-Heinemann. https://doi.org/https://doi.org/10.1016/B978-0-444-63362-0.00002-1

Verma, S., Pant, M., & Snasel, V. (2021). A comprehensive review on NSGA-II for multi-objective combinatorial optimization problems. *IEEE Access*, *9*, 57757–57791. https://doi.org/10.1109/ACCESS.2021.3070634

Wang, Q., Huang, N., Cai, H. Y., et al. (2023). Water strategies and practices for sustainable development in the semiconductor industry. *Water Cycle*, *4*, 12–16. https://doi.org/10.1016/j.watcyc.2023.02.001

Woller, D., Rada, J., & Kulich, M. (2023). The ALNS metaheuristic for the transmission maintenance scheduling. *Journal of Heuristics*, *29*(4), 349–382. https://doi.org/10.1007/s10732-023-09514-x

Zhang, Y., Atasoy, B., & Negenborn, R. (2021). Preference-based multi-objective optimization for synchromodal transport using adaptive large neighborhood search [MOALNS application for synchromodal transport optimization]. *Transportation Research Part C: Emerging Technologies*, *132*, 103418. https://doi.org/10.5281/zenodo.6011381