

Daftar Pustaka

- Abbasi, B., & Mahlooji, H. (2012). Improving response surface methodology by using artificial neural network and simulated annealing. *Expert Systems with Applications*, 39(3), 3461–3468. <https://doi.org/10.1016/j.eswa.2011.09.036>
- Adeyinka, A., Olatunde, F., & Bodunrin, A. (2017). Deepwater infill drilling evaluation using experimental design: The Agbami case study. *Society of Petroleum Engineers - Nigeria Annual International Conference and Exhibition 2017*, 300–313. <https://doi.org/10.2118/189103-ms>
- Ajav, E. A., & Akogun, O. A. (2015). The performance of a combined dewatered cassava mash lump pulverizer and sifter under some operational factors. *Agricultural Engineering International: CIGR Journal*, 17(2), 82–92.
- Akteke-Ozturk, B., Koksall, G., & Weber, G. W. (2018). Nonconvex optimization of desirability functions. *Quality Engineering*, 30(2), 293–310. <https://doi.org/10.1080/08982112.2017.1315136>
- Anderson-Cook, C. M. (2008). Optimum Experimental Designs, With SAS. *Journal of the American Statistical Association*, 103(483), 1327–1328. <https://doi.org/10.1198/jasa.2008.s258>
- Anderson, M. J., & Whitcomb, P. J. (2017). *RSM Simplified: Optimizing Processes Using Response Surface Methods for Design of Experiments* (2nd Ed). CRC Press.
- Arnaiz-González, Á., Díez-Pastor, J. F., Rodríguez, J. J., & García-Osorio, C. (2016). Instance selection for regression: Adapting DROP. *Neurocomputing*, 201, 66–81. <https://doi.org/https://doi.org/10.1016/j.neucom.2016.04.003>
- Babu, S. K., Rao, M. V., Babu, S. P., & Chakka, M. V. V. S. (2021). Chemometric assisted development and validation of a stability-indicating lc method for determination of related substances in haloperidol decanoate injection. *Indian Journal of Pharmaceutical Education and Research*, 55(3), 904–915. <https://doi.org/10.5530/ijper.55.3.165>
- Berni, R. (2003). The use of observational data to implement an optimal experimental design. *Quality and Reliability Engineering International*, 19(4), 307–315. <https://doi.org/10.1002/qre.582>
- Berni, R., De March, D., & Stefanini, F. M. (2013). T-optimality and neural networks: A comparison of approaches for building experimental designs. *Applied Stochastic Models in Business and Industry*, 29(5), 454–467. <https://doi.org/10.1002/asmb.1924>
- Bertsekas, D. P. (1982). *Constrained Optimization and Lagrange Multiplier Methods*. Academic Press. <https://books.google.co.id/books?id=AX0jIIftffkC>
- Bhote, K., & Bhote, A. (1999). *World Class Quality: Using Design of Experiments to Make It Happen* (Second). Amacom.
- Box, G. E. P., Draper, N. R., & Draper, N. R. (1998). *Evolutionary Operation: A Statistical Method for Process Improvement*. Wiley. <https://books.google.co.id/books?id=8g8oAQAAAMAJ>
- Camposeco-Negrete, C. (2020). Optimization of printing parameters in fused deposition modeling for improving part quality and process sustainability. *International Journal of Advanced Manufacturing Technology*, 108(7–8),

- 2131–2147. <https://doi.org/10.1007/s00170-020-05555-9>
- Chahal, M., Singh, V., & Garg, R. (2017). Optimum surface roughness evaluation of dies steel H-11 with CNC milling using RSM with desirability function. *International Journal of Systems Assurance Engineering and Management*, 8(2), 432–444. <https://doi.org/10.1007/s13198-016-0446-y>
- Chan, C. H., Kasim, M. S., Izamshah, R., Bakar, H. A., Sundi, S. A., Zakaria, K. A., Haron, C. H. C., Ghani, J. A., & Hafiz, M. S. A. (2017). Analysis of face milling performance on Inconel 718 using FEM and historical data of RSM. *IOP Conference Series: Materials Science and Engineering*, 270(1), 0–11. <https://doi.org/10.1088/1757-899X/270/1/012038>
- Chen, L., Liu, Z., Sun, P., & Huo, W. (2015). Formulation of a fuel spray SMD model at atmospheric pressure using Design of Experiments (DoE). *Fuel*, 153, 355–360. <https://doi.org/10.1016/j.fuel.2015.03.013>
- Chen, W. C., Nguyen, M. H., Chiu, W. H., Chen, T. N., & Tai, P. H. (2016). Optimization of the plastic injection molding process using the Taguchi method, RSM, and hybrid GA-PSO. *International Journal of Advanced Manufacturing Technology*, 83(9–12), 1873–1886. <https://doi.org/10.1007/s00170-015-7683-0>
- Chi, H. M., Ersoy, O. K., Moskowitz, H., & Altinkemer, K. (2007). Toward automated intelligent manufacturing systems (AIMS). *INFORMS Journal on Computing*, 19(2), 302–312. <https://doi.org/10.1287/ijoc.1050.0171>
- Chien, C. F., Chang, K. H., & Wang, W. C. (2014). An empirical study of design-of-experiment data mining for yield-loss diagnosis for semiconductor manufacturing. *Journal of Intelligent Manufacturing*, 25(5), 961–972. <https://doi.org/10.1007/s10845-013-0791-5>
- Cox, J. R. (2009). A design of experiments approach to turbine engine aeromechanical ground testing. *45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, August*, 1–6. <https://doi.org/10.2514/6.2009-5520>
- Crombecq, K., & Dhaene, T. (2010). *Generating Sequential Space-Filling Designs Using Genetic Algorithms and Monte Carlo Methods BT - Simulated Evolution and Learning* (K. Deb, A. Bhattacharya, N. Chakraborti, P. Chakraborty, S. Das, J. Dutta, S. K. Gupta, A. Jain, V. Aggarwal, J. Branke, S. J. Louis, & K. C. Tan (eds.); pp. 80–84). Springer Berlin Heidelberg.
- de Aguiar, P. F., Bourguignon, B., Khots, M. S., Massart, D. L., & Phan-Thau-Luu, R. (1995). D-optimal designs. *Chemometrics and Intelligent Laboratory Systems*, 30(2), 199–210. [https://doi.org/10.1016/0169-7439\(94\)00076-X](https://doi.org/10.1016/0169-7439(94)00076-X)
- de Oliveira, L. G., de Paiva, A. P., Balestrassi, P. P., Ferreira, J. R., da Costa, S. C., & da Silva Campos, P. H. (2019). Response surface methodology for advanced manufacturing technology optimization: theoretical fundamentals, practical guidelines, and survey literature review. *International Journal of Advanced Manufacturing Technology*, 104(5–8), 1785–1837. <https://doi.org/10.1007/s00170-019-03809-9>
- Dogan, A., Birant, D., & Kut, A. (2019). Multi-Target Regression for Quality Prediction in a Mining Process. *2019 4th International Conference on Computer Science and Engineering (UBMK)*, 639–644. <https://doi.org/10.1109/UBMK.2019.8907120>

- Draper, N. R., & Smith, H. (1998). *Applied Regression Analysis* (3rd ed.). John Wiley & Sons.
- Drumond, P., Kappes, D., de Moraes, C., Oliveira, E., & Teixeira, M. (2018). Soft Sensor: Machine Learning Tradicional Ou Deep Learning? *Seminário de Automação e TI*, 231–242. <https://doi.org/10.5151/2237-0234-31915>
- Ekpotu, W. F., Ighalo, J. O., Nkundu, K. B., Ogwo, P., & Adeniyi, A. G. (2020). Analysis of Factor Effects and Interactions in a Conventional Drilling Operation by Response Surface Methodology and Historical Data Design. *Petroleum and Coal Article*, 62(4), 1356–1368.
- Faleiro, R. M. R., Velloso, C. M., De Castro, L. F. A., & Sampaio, R. S. (2013). Statistical modeling of charcoal consumption of blast furnaces based on historical data. *Journal of Materials Research and Technology*, 2(4), 303–307. <https://doi.org/10.1016/j.jmrt.2013.04.002>
- Fang, K., Zhou, Y., & Ma, P. (2020). An adaptive sequential experiment design method for model validation. *Chinese Journal of Aeronautics*, 33(6), 1661–1672. <https://doi.org/10.1016/j.cja.2019.12.026>
- Faraway, J. J., & Augustin, N. H. (2018). When small data beats big data. *Statistics and Probability Letters*, 136, 142–145. <https://doi.org/10.1016/j.spl.2018.02.031>
- Fatoni, R., Elkamel, A., Simon, L., & Almansoori, A. (2015). A computer-aided framework for product design with application to wheat straw polypropylene composites. *Canadian Journal of Chemical Engineering*, 93(12), 2141–2149. <https://doi.org/10.1002/cjce.22346>
- Fazeli Burestan, N., Afkari Sayyah, A. H., & Taghinezhad, E. (2020). Mathematical modeling for the prediction of some quality parameters of white rice based on the strength properties of samples using response surface methodology (RSM). *Food Science and Nutrition*, 8(8), 4134–4144. <https://doi.org/10.1002/fsn3.1703>
- Fearn, T. (2008). Design of Experiments 6: Evolutionary Operation (EVOP). *NIR News*, 19(1), 16–17. <https://doi.org/10.1255/nirn.1061>
- Fellaou, S., Harnoune, A., Seghra, M. A., & Bounahmidi, T. (2018). Statistical modeling and optimization of the combustion efficiency in cement kiln precalciner. *Energy*, 155, 351–359. <https://doi.org/10.1016/j.energy.2018.04.181>
- Gagliardi, F., Ambrogio, G., Ciancio, C., & Filice, L. (2017). Metamodeling technique for designing reengineered processes by historical data. *Journal of Manufacturing Systems*, 45, 195–200. <https://doi.org/10.1016/j.jmsy.2017.09.004>
- Galí, A., García-Montoya, E., Ascaso, M., Pérez-Lozano, P., Ticó, J. R., Miñarro, M., & Suñé-Negre, J. M. (2016). Improving tablet coating robustness by selecting critical process parameters from retrospective data. *Pharmaceutical Development and Technology*, 21(6), 688–697. <https://doi.org/10.3109/10837450.2015.1045619>
- Galí, Albert, Ascaso, M., Nardi-Ricart, A., Suñé-Pou, M., Pérez-Lozano, P., Suñé-Negre, J. M., & García-Montoya, E. (2020). Robustness optimization of an existing tablet coating process applying retrospective knowledge (Rqbd) and

- validation. *Pharmaceutics*, 12(8), 1–14.
<https://doi.org/10.3390/pharmaceutics12080743>
- Garg, H. K., & Singh, R. (2017). Investigations for obtaining desired strength of Nylon6 and Fe powder-based composite wire for FDM feedstock filament. *Progress in Additive Manufacturing*, 2(1–2), 73–83.
<https://doi.org/10.1007/s40964-017-0022-2>
- Geldsetzer, P., & Fawzi, W. (2017). Quasi-experimental study designs series—paper 2: complementary approaches to advancing global health knowledge. In *Journal of Clinical Epidemiology* (Vol. 89). Elsevier Inc.
<https://doi.org/10.1016/j.jclinepi.2017.03.015>
- Ghiasi, E., & Malekzadeh, A. (2020). Removal of Various Textile Dyes Using LaMn(Fe)O₃ and LaFeMn_{0.5}O₃ Nanoperovskites; RSM Optimization, Isotherms and Kinetics Studies. *Journal of Inorganic and Organometallic Polymers and Materials*, 30(7), 2789–2804. <https://doi.org/10.1007/s10904-019-01438-z>
- Goos, P., & Jones, B. (2011). Optimal Design of Experiments. In *Optimal Design of Experiments*. Wiley. <https://doi.org/10.1080/00224065.2012.11917900>
- Gosiewska, A., Kozak, A., & Biecek, P. (2021). Simpler is better: Lifting interpretability-performance trade-off via automated feature engineering. *Decision Support Systems*, 150, 113556.
<https://doi.org/https://doi.org/10.1016/j.dss.2021.113556>
- Gröger, C., Niedermann, F., & Mitschang, B. (2012). Data mining-driven manufacturing process optimization. *Lecture Notes in Engineering and Computer Science*, 3, 1475–1481.
- Gunantara, N. (2018). A review of multi-objective optimization: Methods and its applications. *Cogent Engineering*, 5(1), 1502242.
<https://doi.org/10.1080/23311916.2018.1502242>
- Guo, S., & Fraser, M. W. (2014). *Propensity score analysis: Statistical methods and applications* (Vol. 11). SAGE publications.
- Han, J., Kamber, M., & Pei, J. (2012). Data Mining: Concepts and Techniques. In *Data Mining: Concepts and Techniques*. <https://doi.org/10.1016/C2009-0-61819-5>
- Hartl, R., Hansjakob, J., & Zaeh, M. F. (2020). Improving the surface quality of friction stir welds using reinforcement learning and Bayesian optimization. *International Journal of Advanced Manufacturing Technology*, 3145–3167.
<https://doi.org/10.1007/s00170-020-05696-x>
- Heredia-Langner, A., Montgomery, D. C., Carlyle, W. M., & Borror, C. M. (2004). Model-Robust Optimal Designs: A Genetic Algorithm Approach. *Journal of Quality Technology*, 36(3), 263–279.
<https://doi.org/10.1080/00224065.2004.11980273>
- Huang, M. L., Hung, Y. H., & Yang, Z. S. (2016). Validation of a method using Taguchi, response surface, neural network, and genetic algorithm. *Measurement: Journal of the International Measurement Confederation*, 94, 284–294. <https://doi.org/10.1016/j.measurement.2016.08.006>
- Hubadillah, S. K., Dzarfan Othman, M. H., Harun, Z., Ismail, A. F., Iwamoto, Y., Honda, S., Rahman, M. A., Jaafar, J., Gani, P., & Mohd Sokri, M. N. (2016).

- Effect of fabrication parameters on physical properties of metakaolin-based ceramic hollow fibre membrane (CHFM). *Ceramics International*, 42(14), 15547–15558. <https://doi.org/10.1016/j.ceramint.2016.07.002>
- Hussain, S., Khan, H., Khan, N., Gul, S., Wahab, F., Khan, K. I., Zeb, S., Khan, S., Baddouh, A., Mehdi, S., Maldonado, A. F., & Campos, M. (2021). Process modeling toward higher degradation and minimum energy consumption of an electrochemical decontamination of food dye wastewater. *Environmental Technology and Innovation*, 22, 101509. <https://doi.org/10.1016/j.eti.2021.101509>
- Ighalo, J. O., & Adeniyi, A. G. (2021). Thermodynamic modelling of dimethyl ether steam reforming. *Clean Technologies and Environmental Policy*, 23(4), 1353–1363. <https://doi.org/10.1007/s10098-021-02033-y>
- Irudayaraj, S., & Charles, S. (2014). Optimization of ball mill operating parameters for their effect on mill output and cement fineness by using RSM method. *International Journal of Applied Engineering Research (IJAER)*, 9(23).
- Irudayaraj, S., & Charles, S. (2015). RSM based prediction of process parameters in the grinding process of Portland pozzolana cement. *International Journal of Applied Engineering Research (IJAER)*, 10(6).
- Jamil, M., Yang, X.-S., & Zepernick, H.-J. (2013). 8 - Test Functions for Global Optimization: A Comprehensive Survey (X.-S. Yang, Z. Cui, R. Xiao, A. H. Gandomi, & M. B. T.-S. I. and B.-I. C. Karamanoglu (eds.); pp. 193–222). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-12-405163-8.00008-9>
- Jeirani, Z., Mohamed Jan, B., Si Ali, B., Noor, I. M., See, C. H., & Saphanuchart, W. (2013). Prediction of the optimum aqueous phase composition of a triglyceride microemulsion using response surface methodology. *Journal of Industrial and Engineering Chemistry*, 19(4), 1304–1309. <https://doi.org/10.1016/j.jiec.2012.12.032>
- Jeirani, Zahra, Mohamed Jan, B., Si Ali, B., Mohd Noor, I., See, C. H., & Saphanuchart, W. (2013). Prediction of water and oil percolation thresholds of a microemulsion by modeling of dynamic viscosity using response surface methodology. *Journal of Industrial and Engineering Chemistry*, 19(2), 554–560. <https://doi.org/10.1016/j.jiec.2012.09.027>
- Joseph, V. R. (2016). Space-filling designs for computer experiments: A review. *Quality Engineering*, 28(1), 28–35. <https://doi.org/10.1080/08982112.2015.1100447>
- Karami, H. R., Keyhani, M., & Mowla, D. (2016). Experimental analysis of drag reduction in the pipelines with response surface methodology. *Journal of Petroleum Science and Engineering*, 138, 104–112. <https://doi.org/10.1016/j.petrol.2015.11.041>
- Kasim, M. S., Harun, N. H., Hafiz, M. S. A., Mohamed, S. B., & Mohamad, W. N. F. W. (2019). Multi-response optimization of process parameter in fused deposition modelling by response surface methodology. *International Journal of Recent Technology and Engineering*, 8(3), 327–338. <https://doi.org/10.35940/ijrte.C4152.098319>
- Katoch, S., Chauhan, S. S., & Kumar, V. (2021). A review on genetic algorithm :

- past , present , and future. In *Multimedia Tools and Applications* (2021) (pp. 8091–8126). Multimedia Tools and Applications.
- Khoei, A. R., Masters, I., & Gethin, D. T. (2002). Design optimisation of aluminium recycling processes using Taguchi technique. *Journal of Materials Processing Technology*, 127(1), 96–106. [https://doi.org/10.1016/S0924-0136\(02\)00273-X](https://doi.org/10.1016/S0924-0136(02)00273-X)
- Khoei, D. A. R., Masters, D. I., & Gethin, P. D. T. (2000). Historical Data Analysis in Quality Improvement of Aluminum Recycling Process. In *Recycling of Metals and Engineered Materials* (pp. 1063–1074). <https://doi.org/https://doi.org/10.1002/9781118788073.ch92>
- Khuri, A. I. (2006). Response Surface Methodology and Related Topics. In *Response Surface Methodology and Related Topics*. World Scientific Publishing. <https://doi.org/10.1080/00224065.2007.11917695>
- Kim, H. G., Son, H. J., Lee, D. K., Kim, D. W., Park, H. J., & Cho, D. H. (2017). Optimization and analysis of reaction injection molding of polydicyclopentadiene using response surface methodology. *Korean Journal of Chemical Engineering*, 34(7), 2099–2109. <https://doi.org/10.1007/s11814-017-0102-5>
- Kim, Y., & Enke, D. (2017). Instance Selection Using Genetic Algorithms for an Intelligent Ensemble Trading System. *Procedia Computer Science*, 114, 465–472. <https://doi.org/10.1016/j.procs.2017.09.030>
- Kitchin, R., & Lauriault, T. P. (2015). Small data in the era of big data. *GeoJournal*, 80(4), 463–475. <https://doi.org/10.1007/s10708-014-9601-7>
- Kockal, N. U., & Ozturan, T. (2011). Optimization of properties of fly ash aggregates for high-strength lightweight concrete production. *Materials and Design*, 32(6), 3586–3593. <https://doi.org/10.1016/j.matdes.2011.02.028>
- Komaravolu, Y., Dama, V. R., & Maringanti, T. C. (2019). Novel, efficient, facile, and comprehensive protocol for post-column amino acid analysis of icatibant acetate containing natural and unnatural amino acids using the QbD approach. *Amino Acids*, 51(2), 295–309. <https://doi.org/10.1007/s00726-018-2665-9>
- Kostić, S., Vasović, N., & Marinković, B. (2017). Robust optimization of concrete strength estimation using response surface methodology and Monte Carlo simulation. *Engineering Optimization*, 49(5), 864–877. <https://doi.org/10.1080/0305215X.2016.1211432>
- Kramer, O. (2017). *Genetic Algorithm Essentials*. Springer International Publishing. <https://books.google.co.id/books?id=NxLcDQAAQBAJ>
- Kwame Osei, E. (2019). *Machine Learning-based Quality Prediction in the Froth Flotation Process of Mining*. Dalarna University.
- Lindstorm, M. (2016). *Small Data: The Tiny Clues That Ucover Huge Trends*. St. Martin Press.
- Ling, J., Hutchinson, M., Antono, E., Paradiso, S., & Meredig, B. (2017). High-Dimensional Materials and Process Optimization Using Data-Driven Experimental Design with Well-Calibrated Uncertainty Estimates. *Integrating Materials and Manufacturing Innovation*, 6(3), 207–217. <https://doi.org/10.1007/s40192-017-0098-z>
- Liou, J. Y., Wang, H. Y., Tsou, M. Y., Chang, W. K., Kuo, I. T., & Ting, C. K.

- (2019). Opioid and propofol pharmacodynamics modeling during brain mapping in awake craniotomy. *Journal of the Chinese Medical Association*, 82(5), 390–395. <https://doi.org/10.1097/JCMA.0000000000000092>
- Liu, H., & Motoda, H. (2001). *Instance Selection and Construction for Data Mining* (H. Liu & H. Motoda (eds.)). Springer Science.
- Liu, Y. C., & Yeh, I. C. (2017). Using mixture design and neural networks to build stock selection decision support systems. *Neural Computing and Applications*, 28(3), 521–535. <https://doi.org/10.1007/s00521-015-2090-x>
- Loy, C., Goh, T. N., & Xie, M. (2002). Retrospective factorial fitting and reverse design of experiments. *Total Quality Management*, 13(5), 589–602. <https://doi.org/10.1080/0954412022000002009>
- Luga, E., & Peqini, K. (2019). The influence of oxide content on the properties of fly ash/ slag geopolymers mortars activated with NaOH. *Periodica Polytechnica Civil Engineering*, 63(4), 1217–1224. <https://doi.org/10.3311/PPci.14381>
- Luke, S. (2012). *Essentials of Metaheuristics (Second Edition)*. Lulu.com. <https://books.google.co.id/books?id=5FDdsgEACAAJ>
- Mahlamäki, K., & Nieminen, M. (2019). Analysis of manual data collection in maintenance context. *Journal of Quality in Maintenance Engineering*, 26(1), 104–119. <https://doi.org/10.1108/JQME-12-2017-0091>
- Mahmoodi, N. M., Keshavarzi, S., & Rezaei, P. (2017). Synthesis of copper oxide nanoparticle and photocatalytic dye degradation study using response surface methodology (RSM) and genetic algorithm (GA). *Desalination and Water Treatment*, 72, 394–405. <https://doi.org/10.5004/dwt.2017.20639>
- Mahmoodi, N. M., Taghizadeh, M., & Taghizadeh, A. (2019). Activated carbon/metal-organic framework composite as a bio-based novel green adsorbent: Preparation and mathematical pollutant removal modeling. *Journal of Molecular Liquids*, 277, 310–322. <https://doi.org/10.1016/j.molliq.2018.12.050>
- Messac, A. (2015). *Optimization in Practice with MATLAB*. Cambridge University Press. <https://books.google.co.id/books?id=F62wBgAAQBAJ>
- Mohamed, Mohd Shamzi Mohamad, R., Ramanan, R. N., Manan, M. A., & Ariff, A. B. (2009). Modeling of oxygen transfer correlations for stirred tank bioreactor agitated with atypical helical ribbon impeller. *American Journal of Applied Sciences*, 6(5), 848–856.
- Mohammed, B. S., Adamu, M., & Liew, M. S. (2018). Evaluating the static and dynamic modulus of elasticity of roller compacted rubbercrete using response surface methodology. *International Journal of GEOMATE*, 14(41), 186–192. <https://doi.org/10.21660/2018.41.42833>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ (Online)*, 339(7716), 332–336. <https://doi.org/10.1136/bmj.b2535>
- Montgomery, D. (2017). Exploring observational data. *Quality and Reliability Engineering International*, 33(8), 1639–1640. <https://doi.org/10.1002/qre.2243>
- Montgomery, D. C. (2017). Design and Analysis of Experiments. In *Design and*

- Analysis of Experiments* (9th ed.). Wiley.
- Muhamad, M. S., Hamidon, N., Salim, M. R., Yusop, Z., Lau, W. J., & Hadibarata, T. (2018). Response Surface Methodology for Modeling Bisphenol A Removal Using Ultrafiltration Membrane System. *Water, Air, and Soil Pollution*, 229(7). <https://doi.org/10.1007/s11270-018-3875-1>
- Mutalib, N. A. A., Jaswir, I., Akmeliawati, R., Latief, M., Octavianti, F., Alkahthani, H., & Abstract. (2018). Optimization of lard compound analysis using portable electronic nose based upon response surface methodology. *Malaysian Journal of Consumer and Family Economics*, 21(2), 125–138.
- Myers, R H, Montgomery, D. C., & Anderson-Cook, C. M. (2016). *Response Surface Methodology: Process and Product Optimization Using Designed Experiments*. Wiley. <https://books.google.co.id/books?id=YFSzCgAAQBAJ>
- Myers, Raymond H, Khuri, A. I., & Carter, W. H. (1989). Response Surface Methodology : 1966-1988. *Technometrics*, 31(2), 137. <https://doi.org/10.1080/00401706.1989.10488509>
- Nataraj, M., Balasubramanian, K., & Palanisamy, D. (2018). Optimization of Machining Parameters for CNC Turning of Al/Al₂O₃ MMC Using RSM Approach. *Materials Today: Proceedings*, 5(6), 14265–14272. <https://doi.org/10.1016/j.matpr.2018.03.008>
- Nee, C. Y., Saad, M. S., Mohd Nor, A., Zakaria, M. Z., & Baharudin, M. E. (2018). Optimal process parameters for minimizing the surface roughness in CNC lathe machining of Co28Cr6Mo medical alloy using differential evolution. *International Journal of Advanced Manufacturing Technology*, 97(1–4), 1541–1555. <https://doi.org/10.1007/s00170-018-1817-0>
- Nemati, N., & Eslamlueyan, R. (2019). Development of RSM Statistical Model for Methanol Carbonylation Rate for Acetic Acid Synthesis by Using Cativa TM Technology. *Chemical Product and Process Modeling*, 14(2), 1–13. <https://doi.org/10.1515/cppm-2018-0046>
- Nookaraju, B. C., & Sohail, M. (2020). Experimental investigation and optimization of process parameters of hybrid wick heat pipe using with RSM historical data design. *Materials Today: Proceedings*, xxxx. <https://doi.org/10.1016/j.matpr.2020.05.634>
- Olia, M. S. J., Azin, M., Sepahy, A. A., & Moazami, N. (2019). Feasibility of improving carbohydrate content of Chlorella S4, a native isolate from the Persian Gulf using sequential statistical designs. *Biofuels*, 0(0), 1–9. <https://doi.org/10.1080/17597269.2019.1679572>
- Olvera-López, J. A., Carrasco-Ochoa, J. A., Martínez-Trinidad, J. F., & Kittler, J. (2010). A review of instance selection methods. *Artificial Intelligence Review*, 34(2), 133–143. <https://doi.org/10.1007/s10462-010-9165-y>
- Peces, D. P., García-Montoya, E., Manich, A., Suñé-Negre, J. M., Pérez-Lozano, P., Miñarro, M., & Ticó, J. R. (2016). Approach to design space from retrospective quality data. *Pharmaceutical Development and Technology*, 21(1), 26–38. <https://doi.org/10.3109/10837450.2014.965321>
- Pereira, L. S. B., & Rodrigues, R. N. (2020). *Application of unsupervised machine learning to quality prediction in mining industry*. Zenodo. <https://doi.org/10.5281/ZENODO.3951235>

- Petrotos, K., Giavasis, I., Gerasopoulos, K., Mitsagga, C., Papaioannou, C., & Gkoutosidis, P. (2021). Optimization of the vacuum microwave assisted extraction of the natural polyphenols and flavonoids from the raw solid waste of the pomegranate juice producing industry at industrial scale. *Molecules*, 26(4). <https://doi.org/10.3390/molecules26041033>
- Pirmohammad, S., Esmaceli-Marzdashti, S., & Eyvazian, A. (2019). Crashworthiness design of multi-cell tapered tubes using response surface methodology. *Journal of Computational and Applied Research in Mechanical Engineering*, 9(1), 57–72. <https://doi.org/10.22061/jcarme.2018.2825.1292>
- Pradubsri, W., Chomtee, B., & Borkowski, J. J. (2019). Using a genetic algorithm to generate D-optimal designs for mixture-process variable experiments. *Quality and Reliability Engineering International*, 35(8), 2657–2676. <https://doi.org/10.1002/qre.2549>
- Pu, Y., Szmigiel, A., & Apel, D. B. (2020). Purities prediction in a manufacturing froth flotation plant: the deep learning techniques. *Neural Computing and Applications*, 32(17), 13639–13649. <https://doi.org/10.1007/s00521-020-04773-2>
- Rahman, M. M., Imtiaz, S. A., & Hawboldt, K. (2016). A hybrid input variable selection method for building soft sensor from correlated process variables. *Chemometrics and Intelligent Laboratory Systems*, 157, 67–77. <https://doi.org/10.1016/j.chemolab.2016.06.015>
- Raina, A. K. (2019). Influence of Joint Conditions and Blast Design on Pre-split Blasting Using Response Surface Analysis. In *Rock Mechanics and Rock Engineering* (Vol. 52, Issue 10, pp. 4057–4070). <https://doi.org/10.1007/s00603-019-01822-8>
- Rao, P. D., Kiran, C. U., & Prasad, K. E. (2019). Mathematical model and optimisation for tensile strength of human hair reinforced polyester composites. *International Journal of Computational Materials Science and Surface Engineering*, 8(1), 76–88. <https://doi.org/10.1504/IJCMSSE.2019.101658>
- Reichardt, C. S., & Little, T. D. (2019). *Quasi-Experimentation: A Guide to Design and Analysis*. Guilford Publications. https://books.google.co.id/books?id=_z5ovgEACAAJ
- Ripley, B. D. (1996). *Pattern Recognition and Neural Networks*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511812651>
- Rudisill, T. S., Hobbs, D. T., & Edwards, T. B. (2010). Plutonium solubility in simulated Savannah River Site waste solutions. *Separation Science and Technology*, 45(12), 1782–1792. <https://doi.org/10.1080/01496395.2010.494090>
- Saad, M. S., Nor, A. M., Baharudin, M. E., Zakaria, M. Z., & Aiman, A. F. (2019). Optimization of surface roughness in FDM 3D printer using response surface methodology, particle swarm optimization, and symbiotic organism search algorithms. *International Journal of Advanced Manufacturing Technology*, 105(12), 5121–5137. <https://doi.org/10.1007/s00170-019-04568-3>
- Sadati, N., Chinnam, R. B., & Nezhad, M. Z. (2018). Observational data-driven modeling and optimization of manufacturing processes. *Expert Systems with*

- Applications*, 93, 456–464. <https://doi.org/10.1016/j.eswa.2017.10.028>
- Salam, K., Agarry, S., Arinkoola, A., & Shoremekun, I. (2015). Optimization of Operating Conditions Affecting Microbiologically Influenced Corrosion of Mild Steel Exposed to Crude Oil Environments Using Response Surface Methodology. *British Biotechnology Journal*, 7(2), 68–78. <https://doi.org/10.9734/bbj/2015/16810>
- Salam, K. K., Arinkoola, A. O., & Aminu, M. D. (2018). Application of response surface methodology (RSM) For the modelling and optimization of sand minimum transport condition (MTC) in pipeline multiphase flow. *Petroleum and Coal*, 60(2), 339–348. https://www.researchgate.net/publication/333133950_STORAGE_TANK_PROTECTION_USING Aspen_HYSYS
- Samadi, A., Sharifi, H., Ghobadi Nejad, Z., Hasan-Zadeh, A., & Yaghmaei, S. (2020). Biodegradation of 4-Chlorobenzoic Acid by *Lysinibacillus macrolides* DSM54T and Determination of Optimal Conditions. *International Journal of Environmental Research*, 14(2), 145–154. <https://doi.org/10.1007/s41742-020-00247-4>
- Santner, T. J., Williams, B. J., & Notz, W. I. (2003). *Space-Filling Designs for Computer Experiments* (T. J. Santner, B. J. Williams, & W. I. Notz (eds.)); pp. 121–161). Springer New York. https://doi.org/10.1007/978-1-4757-3799-8_5
- Schutt, R., & O’Neil, C. (2014). Doing data science. In *Choice Reviews Online*. O’Reilly Media Inc. <https://doi.org/10.5860/choice.51-6803>
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and Quasi-experimental Designs for Generalized Causal Inference* (Issue v. 1). Houghton Mifflin. <https://books.google.co.id/books?id=o7jaAAAAMAAJ>
- Shainin, D., & Shainin, P. (1988). Better than Taguchi orthogonal tables. *Quality and Reliability Engineering International*, 4(2), 143–149. <https://doi.org/10.1002/qre.4680040209>
- Shakor, Z. M., AbdulRazak, A. A., & Shuhaib, A. A. (2021). Optimization of process variables for hydrogenation of cinnamaldehyde to cinnamyl alcohol over a Pt/SiO₂ catalyst using response surface methodology. *Chemical Engineering Communications*, 1–17. <https://doi.org/10.1080/00986445.2021.1922394>
- Shang, X., Chao, T., Ma, P., & Yang, M. (2020). An efficient local search-based genetic algorithm for constructing optimal Latin hypercube design. *Engineering Optimization*, 52(2), 271–287. <https://doi.org/10.1080/0305215X.2019.1584618>
- Sharma, S. K., Maheshwari, S., & Rathee, S. (2016). Multi-Objective Optimization of Bead Geometry for Submerged Arc Welding of Pipeline Steel Using RSM-Fuzzy Approach. *Journal for Manufacturing Science and Production*, 16(3), 141–151. <https://doi.org/10.1515/jmsp-2016-0009>
- Shin, S. J., Woo, J., Rachuri, S., & Meilanitasari, P. (2018). Standard data-based predictive modeling for power consumption in turning machining. *Sustainability (Switzerland)*, 10(3), 1–19. <https://doi.org/10.3390/su10030598>
- Šibalija, T., Majstorovic, V., & Sokovic, M. (2011). Taguchi-based and intelligent optimisation of a multi-response process using historical data. *Strojniski*

- Vestnik/Journal of Mechanical Engineering*, 57(4), 357–365.
<https://doi.org/10.5545/sv-jme.2010.061>
- Siebert, M., Krennrich, G., Seibicke, M., Siegle, A. F., & Trapp, O. (2019). Identifying high-performance catalytic conditions for carbon dioxide reduction to dimethoxymethane by multivariate modelling. *Chemical Science*, 10(45), 10466–10474. <https://doi.org/10.1039/c9sc04591k>
- Signorelli, S., & Biffignandi, S. (2018). *From Big Data to Information: Statistical Issues Through a Case Study BT - Classification, (Big) Data Analysis and Statistical Learning* (F. Mola, C. Conversano, & M. Vichi (eds.); pp. 3–11). Springer International Publishing.
- Singh, R. (2017). Modelling of micro hardness in cold chamber pressure die casting process. *Advances in Materials and Processing Technologies*, 3(3), 438–448. <https://doi.org/10.1080/2374068X.2017.1336887>
- Stat-Ease, I. (2021). *Design-Expert* 13 (No. 13). <https://www.statease.com/docs/latest/tutorials/>
- Sukthomya, W., & Tannock, J. D. T. (2005). Taguchi experimental design for manufacturing process optimisation using historical data and a neural network process model. *International Journal of Quality and Reliability Management*, 22(5), 485–502. <https://doi.org/10.1108/02656710510598393>
- Suteja, J., & Hadiyat, M. A. (2020). Optimization of Material Removal Rate and Dimensional Errors in Subtractive Rapid Prototyping of Polycarbonate Material. *Materials Science Forum*, 975, 235–241. <https://doi.org/10.4028/www.scientific.net/MSF.975.235>
- Teng, W. N., Tsou, M. Y., Chen, P. T., Liou, J. Y., Yu, L., Westenskow, D. R., & Ting, C. K. (2017). A desflurane and fentanyl dosing regimen for wake-up testing during scoliosis surgery: Implications for the time-course of emergence from anesthesia. *Journal of the Formosan Medical Association*, 116(8), 606–612. <https://doi.org/10.1016/j.jfma.2016.10.001>
- Tsai, C.-F., Eberle, W., & Chu, C.-Y. (2013). Genetic algorithms in feature and instance selection. *Knowledge-Based Systems*, 39, 240–247. <https://doi.org/https://doi.org/10.1016/j.knosys.2012.11.005>
- Tsai, K. M., & Luo, H. J. (2015). Comparison of injection molding process windows for plastic lens established by artificial neural network and response surface methodology. *International Journal of Advanced Manufacturing Technology*, 77(9–12), 1599–1611. <https://doi.org/10.1007/s00170-014-6366-6>
- Tsai, K. M., & Tang, B. H. (2014). Determination of injection molding process window based on form accuracy of lens using response surface methodology. *International Journal of Advanced Manufacturing Technology*, 75(5–8), 947–958. <https://doi.org/10.1007/s00170-014-6185-9>
- Venkata Rao, K., & Murthy, P. B. G. S. N. (2018). Modeling and optimization of tool vibration and surface roughness in boring of steel using RSM, ANN and SVM. *Journal of Intelligent Manufacturing*, 29(7), 1533–1543. <https://doi.org/10.1007/s10845-016-1197-y>
- Ventosa-Santaulària, D. (2009). Spurious Regression. *Journal of Probability and Statistics*, 2009, 802975. <https://doi.org/10.1155/2009/802975>

- Viana, F. A. C. (2016). A Tutorial on Latin Hypercube Design of Experiments. *Quality and Reliability Engineering International*, 32(5), 1975–1985. <https://doi.org/https://doi.org/10.1002/qre.1924>
- Vlassides, S., Ferrier, J. G., & Block, D. E. (2001). Using historical data for bioprocess optimization: Modeling wine characteristics using artificial neural networks and archived process information. *Biotechnology and Bioengineering*, 73(1), 55–68. [https://doi.org/10.1002/1097-0290\(20010405\)73:1<55::AID-BIT1036>3.0.CO;2-5](https://doi.org/10.1002/1097-0290(20010405)73:1<55::AID-BIT1036>3.0.CO;2-5)
- Wan Azelee, I., Goh, P. S., Lau, W. J., & Ismail, A. F. (2018). Facile acid treatment of multiwalled carbon nanotube-titania nanotube thin film nanocomposite membrane for reverse osmosis desalination. *Journal of Cleaner Production*, 181, 517–526. <https://doi.org/10.1016/j.jclepro.2018.01.212>
- Weichert, D., Link, P., Stoll, A., Rüping, S., Ihlenfeldt, S., & Wrobel, S. (2019). A review of machine learning for the optimization of production processes. *International Journal of Advanced Manufacturing Technology*, 104(5–8), 1889–1902. <https://doi.org/10.1007/s00170-019-03988-5>
- Widyaningsih, T. D., Widjanarko, S. B., Waziiroh, E., Wijayanti, N., & Maslukhah, Y. L. (2018). Pilot plant scale extraction of black cincau (*Mesona palustris* BL) using historical-data response surface methodology. *International Food Research Journal*, 25(2), 712–719.
- Wilson, D. R., & Martinez, T. R. (2000). Reduction Techniques for Instance-Based Learning Algorithms. *Machine Learning*, 38(3), 257–286. <https://doi.org/10.1023/A:1007626913721>
- Wu, D., Wei, Y., & Terpenney, J. (2019). Predictive modelling of surface roughness in fused deposition modelling using data fusion. *International Journal of Production Research*, 57(12), 3992–4006. <https://doi.org/10.1080/00207543.2018.1505058>
- Wulff, R., & Leopold, C. S. (2014). Coatings from blends of Eudragit® RL and L55: A novel approach in pH-controlled drug release. *International Journal of Pharmaceutics*, 476(1), 78–87. <https://doi.org/10.1016/j.ijpharm.2014.09.023>
- Xi, R., Jia, H., & Xiao, Q. (2011). Study of experimental design and Response Surface method for surrogate model of computational simulation. *2011 International Conference on Electrical and Control Engineering, ICECE 2011 - Proceedings*, 4995–4998. <https://doi.org/10.1109/ICECENG.2011.6057240>
- Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>
- Yang, X. S. (2010). Engineering Optimization: An Introduction with Metaheuristic Applications. In *Engineering Optimization: An Introduction with Metaheuristic Applications* (Issue 1). John Wiley & Sons. <https://doi.org/10.1002/9780470640425>
- Zainal, B. S., Danaee, M., Mohd, N. S., & Ibrahim, S. (2020). Effects of temperature and dark fermentation effluent on biomethane production in a two-stage up-flow anaerobic sludge fixed-film (UASFF) bioreactor. *Fuel*, 263(January 2019). <https://doi.org/10.1016/j.fuel.2019.116729>
- Zakria, M. H., Nawawi, M. G. M., & Rahman, M. R. A. (2021). Ethylene yield



from a large scale naphtha pyrolysis cracking utilizing response surface methodology. *Pertanika Journal of Science and Technology*, 29(2), 791–808. <https://doi.org/10.47836/pjst.29.2.06>

Zullaikah, S., Putra, A. K., Fachrudin, F. H., Utomo, A. T., Naulina, R. Y., Utami, S., Herminanto, R. P., & Ju, Y. H. (2021). Experimental investigation and optimization of non-catalytic in-situ biodiesel production from rice bran using response surface methodology historical data design. *International Journal of Renewable Energy Development*, 10(4), 804–810. <https://doi.org/10.14710/IJRED.2021.34138>