

## DAFTAR PUSTAKA

- [1] D. Zheng, X. Sun, S. K. Damarla, A. Shah, J. Amalraj, dan B. Huang, “Valve Stiction Detection and Quantification Using a K-Means Clustering Based Moving Window Approach,” *Ind. Eng. Chem. Res.*, vol. 60, no. 6, hlm. 2563–2577, Feb 2021, doi: 10.1021/acs.iecr.0c05609.
- [2] R. Srinivasan, R. Rengaswamy, dan R. Miller, “Control Loop Performance Assessment. 1. A Qualitative Approach for Stiction Diagnosis,” *Ind. Eng. Chem. Res.*, vol. 44, no. 17, hlm. 6708–6718, Agu 2005, doi: 10.1021/ie0490280.
- [3] M. Farenzena dan J. O. Trierweiler, “Valve Stiction Evaluation Using Global Optimization,” *IFAC Proceedings Volumes*, vol. 42, no. 11, hlm. 512–517, 2009, doi: 10.3182/20090712-4-TR-2008.00082.
- [4] M. Jelali dan B. Huang, Ed., *Detection and Diagnosis of Stiction in Control Loops*. London: Springer London, 2010. doi: 10.1007/978-1-84882-775-2.
- [5] J. W. V. Dambros, J. O. Trierweiler, M. Farenzena, dan M. Kloft, “Oscillation Detection in Process Industries by a Machine Learning-Based Approach,” *Ind. Eng. Chem. Res.*, vol. 58, no. 31, hlm. 14180–14192, Agu 2019, doi: 10.1021/acs.iecr.9b01456.
- [6] R. Rai, M. K. Tiwari, D. Ivanov, dan A. Dolgui, “Machine learning in manufacturing and industry 4.0 applications,” *International Journal of Production Research*, vol. 59, no. 16, hlm. 4773–4778, Agu 2021, doi: 10.1080/00207543.2021.1956675.
- [7] A. Angelopoulos dkk., “Tackling Faults in the Industry 4.0 Era—A Survey of Machine-Learning Solutions and Key Aspects,” *Sensors*, vol. 20, no. 1, hlm. 109, Des 2019, doi: 10.3390/s20010109.
- [8] L. Breiman, “Random Forests,” *Machine Learning*, vol. 45, no. 1, hlm. 5–32, Okt 2001, doi: 10.1023/A:1010933404324.
- [9] M. R. Shrivastava, D. K. N. Gupta, dan N. Dutta, “Performance Assessment of Ensemble Decision Trees-based Fault Detection System in a Chemical Process,” vol. 13, no. 9, hlm. 7, 2018.



- [10] Y. Y. S. Henry, C. Aldrich, dan H. Zabiri, "Detection and severity identification of control valve stiction in industrial loops using integrated partially retrained CNN-PCA frameworks," *Chemometrics and Intelligent Laboratory Systems*, vol. 206, hlm. 104143, Nov 2020, doi: 10.1016/j.chemolab.2020.104143.
- [11] H. Zabiri dan Y. Samyudia, "MIQP-Based MPC in the Presence of Control Valve Stiction," hlm. 27.
- [12] J. W. V. Dambros, J. O. Trierweiler, dan M. Farenzena, "Oscillation detection in process industries – Part I: Review of the detection methods," *Journal of Process Control*, vol. 78, hlm. 108–123, Jun 2019, doi: 10.1016/j.jprocont.2019.04.002.
- [13] H. Zabiri dan M. Ramasamy, "NLPCA as a diagnostic tool for control valve stiction," *Journal of Process Control*, vol. 19, no. 8, hlm. 1368–1376, Sep 2009, doi: 10.1016/j.jprocont.2009.04.010.
- [14] W. K. Teh *dkk.*, "An Improved Diagnostic Tool for Control Valve Stiction Based on Nonlinear Principle Component Analysis," *Ind. Eng. Chem. Res.*, vol. 57, no. 33, hlm. 11350–11365, Agu 2018, doi: 10.1021/acs.iecr.8b01012.
- [15] A. A. A. Mohd Amiruddin, H. Zabiri, S. S. Jeremiah, W. K. Teh, dan B. Kamaruddin, "Valve stiction detection through improved pattern recognition using neural networks," *Control Engineering Practice*, vol. 90, hlm. 63–84, Sep 2019, doi: 10.1016/j.conengprac.2019.06.008.
- [16] H. T. O'Neill, D. Y. Khalid, D. G. Spink, dan D. P. Thorpe, "Classifying Valve Stiction Using Features Extracted from Time Series," hlm. 1.
- [17] Fisher Controls International LLC dan Emerson Automation Solutions, *Control Valve Handbook 5th Edition*, 5th edition. Emerson, 2017.
- [18] M. A. A. S. Choudhury, S. L. Shah, dan N. F. Thornhill, *Diagnosis of process nonlinearities and valve stiction: data driven approaches*. Berlin ; London: Springer, 2008.
- [19] B. T. Lebele-Alawa dan F. E. Oparadike, "Pressure Surge Dependence on Valve Operations in a Pipeline Loading System," *ENG*, vol. 07, no. 06, hlm. 322–330, 2015, doi: 10.4236/eng.2015.76028.



- [20] Roza Mario dan Duss Markus, “Troubleshooting distillation columns; unexpected causes for malfunctioning columns,” *Chemical Engineering Transactions*, vol. 69, hlm. 469–474, Okt 2018, doi: 10.3303/CET1869079.
- [21] A. Subasi, “Chapter 3 - Machine learning techniques,” dalam *Practical Machine Learning for Data Analysis Using Python*, A. Subasi, Ed. Academic Press, 2020, hlm. 91–202. doi: 10.1016/B978-0-12-821379-7.00003-5.
- [22] A. Subasi, “Chapter 1 - Introduction,” dalam *Practical Machine Learning for Data Analysis Using Python*, A. Subasi, Ed. Academic Press, 2020, hlm. 1–26. doi: 10.1016/B978-0-12-821379-7.00001-1.
- [23] O. Simeone, “A Very Brief Introduction to Machine Learning With Applications to Communication Systems,” *arXiv:1808.02342 [cs, math]*, Nov 2018, Diakses: Agu 15, 2021. [Daring]. Tersedia pada: <http://arxiv.org/abs/1808.02342>
- [24] C. E. Metz, “Basic principles of ROC analysis,” *Seminars in Nuclear Medicine*, vol. 8, no. 4, hlm. 283–298, Okt 1978, doi: 10.1016/S0001-2998(78)80014-2.
- [25] Z. Chen, X. Xu, X. Du, J. Zhang, dan M. Yu, “Leakage Detection in Pipelines Using Decision Tree and Multi-Support Vector Machine,” 2018. doi: 10.2991/ecae-17.2018.71.
- [26] L. E. Raileanu dan K. Stoffel, “Theoretical Comparison between the Gini Index and Information Gain Criteria,” *Annals of Mathematics and Artificial Intelligence*, vol. 41, no. 1, hlm. 77–93, Mei 2004, doi: 10.1023/B:AMAI.0000018580.96245.c6.
- [27] P. Probst, M. Wright, dan A.-L. Boulesteix, “Hyperparameters and Tuning Strategies for Random Forest,” *WIREs Data Mining Knowl Discov*, vol. 9, no. 3, Mei 2019, doi: 10.1002/widm.1301.
- [28] R. G. Mantovani, T. Horváth, R. Cerri, S. B. Junior, J. Vanschoren, dan A. C. P. de L. F. de Carvalho, “An empirical study on hyperparameter tuning of decision trees,” *arXiv:1812.02207 [cs, stat]*, Feb 2019, Diakses: Agu 25, 2021. [Daring]. Tersedia pada: <http://arxiv.org/abs/1812.02207>
- [29] D. Opitz dan R. Maclin, “Popular Ensemble Methods: An Empirical Study,” *Journal of Artificial Intelligence Research*, vol. 11, hlm. 169–198, Agu 1999, doi: 10.1613/jair.614.



- [30] K. Kirasich, “Random Forest vs Logistic Regression: Binary Classification for Heterogeneous Datasets,” vol. 1, no. 3, hlm. 25, 2018.
- [31] T. Hastie, R. Tibshirani, dan J. H. Friedman, *The elements of statistical learning: data mining, inference, and prediction*, 2nd ed. New York, NY: Springer, 2009.
- [32] M. Christ, N. Braun, J. Neuffer, dan A. W. Kempa-Liehr, “Time Series Feature Extraction on basis of Scalable Hypothesis tests (tsfresh – A Python package),” *Neurocomputing*, vol. 307, hlm. 72–77, Sep 2018, doi: 10.1016/j.neucom.2018.03.067.
- [33] M. Barandas dkk., “TSFEL: Time Series Feature Extraction Library,” *SoftwareX*, vol. 11, hlm. 100456, Jan 2020, doi: 10.1016/j.softx.2020.100456.
- [34] I. Redbooks, *Building Smarter Planet Solutions With MQTT and IBM WebSphere MQ Telemetry*. Poughkeepsie, NY: Vervante, 2012.
- [35] “emMQTT: Client Functionality.” <https://www.segger.com/products/security-iot/emmqtt/> (diakses Sep 08, 2021).
- [36] G. Nicosia dkk., Ed., *Machine Learning, Optimization, and Data Science: 6th International Conference, LOD 2020, Siena, Italy, July 19–23, 2020, Revised Selected Papers, Part I*. Springer International Publishing, 2020. doi: 10.1007/978-3-030-64583-0.
- [37] S. Sharma, V. Kumar, dan K. P. S. Rana, “Machine Learning Application for Oscillation Detection in Control Loops,” dalam *Soft Computing: Theories and Applications*, vol. 1053, M. Pant, T. K. Sharma, O. P. Verma, R. Singla, dan A. Sikander, Ed. Singapore: Springer Singapore, 2020, hlm. 1067–1075. doi: 10.1007/978-981-15-0751-9\_98.
- [38] P. Weber, D. Theilliol, C. Aubrun, dan A. Evsukoff, “Increasing Effectiveness of Model-Based Fault Diagnosis: A Dynamic Bayesian Network Design for Decision Making,” dalam *Fault Detection, Supervision and Safety of Technical Processes 2006*, H.-Y. Zhang, Ed. Oxford: Elsevier Science Ltd, 2007, hlm. 90–95. doi: 10.1016/B978-008044485-7/50016-6.

