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- [14] Joekes, S., and Barbosa, E. P., An improved attribute control chart for monitoring non-conforming proportion in high quality processes, *Control Engineering Practice*, vol. 21, no. 4, pp. 407-412, 2013.
- [15] Montgomery, D. C., Introduction to statistical quality control, John Wiley & Sons, 2007.
- [16] Kruger, U., Wang, X., Chen, Q., and Qin, S., An alternative PLS algorithm for the monitoring of industrial process, in American Control Conference, 2001. Proceedings of the 2001, 2001, vol. 6, pp. 4455-4459: IEEE.
- [17] Wang, S., and Cui, J., Sensor-fault detection, diagnosis and estimation for centrifugal chiller systems using principal-component analysis method, *Applied Energy*, vol. 82, no. 3, pp. 197-213, 2005.
- [18] Chen, Y., and Lan, L., A fault detection technique for air-source heat pump water chiller/heaters, *Energy and Buildings*, vol. 41, no. 8, pp. 881-887, 2009.
- [19] Jackson, J. E., A user's guide to principal components, Nueva York (NY): John Wiley & Sons, 1991.
- [20] Wold, S., Esbensen, K., and Geladi, P., Principal component analysis, *Chemometrics and intelligent laboratory systems*, vol. 2, no. 1-3, pp. 37-52, 1987.
- [21] Mallick, M. R., and Intiaz, S. A., A Hybrid Method for Process Fault Detection and Diagnosis, *IFAC Proceedings Volumes*, vol. 46, no. 32, pp. 827-832, 2013.
- [22] Firouzi Jahantigh, F., Malmir, B., and Aslani Avilaq, B., A computer-aided diagnostic system for kidney disease, *Kidney research and clinical practice*, vol. 36, no. 1, p. 29, 2017.
- [23] Simani, S., Farsoni, S., and Castaldi, P., Residual Generator Fuzzy Identification for Wind Turbine Benchmark Fault Diagnosis, *Machines*, vol. 2, no. 4, pp. 275-298, 2014.
- [24] Cui, J., and Wang, S., A model-based online fault detection and diagnosis strategy for centrifugal chiller systems, *International Journal of Thermal Sciences*, vol. 44, no. 10, pp. 986-999, 2005.
- [25] Wang, H., and Chen, Y., A robust fault detection and diagnosis strategy for multiple faults of VAV air handling units, *Energy and Buildings*, 2016.
- [26] Wang, H., Chen, Y., Chan, C. W., Qin, J., and Wang, J., Online model-based fault detection and diagnosis strategy for VAV air handling units, *Energy and Buildings*, vol. 55, pp. 252-263, 2012.
- [27] Xiao, F., Zheng, C., and Wang, S., A fault detection and diagnosis strategy with enhanced sensitivity for centrifugal chillers, *Applied Thermal Engineering*, vol. 31, no. 17, pp. 3963-3970, 2011.
- [28] Shewhart, W. A., Economic control of quality of manufactured product. ASQ Quality Press, 1931.
- [29] Page, E., Continuous inspection schemes. *Biometrika* 41 100-115, *Mathematical Reviews (MathSciNet)*: MR88850 *Zentralblatt MATH*, vol. 56, 1954.
- [30] Roberts, S., Control chart tests based on geometric moving averages, *Technometrics*, no. 1, pp. 239-250, 1959.
- [31] Y. Zhao, S. Wang, and F. Xiao, A statistical fault detection and diagnosis method for centrifugal chillers based on exponentially-weighted moving average control charts and support vector regression, *Applied Thermal Engineering*, vol. 51, no. 1, pp. 560-572, 2013.

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