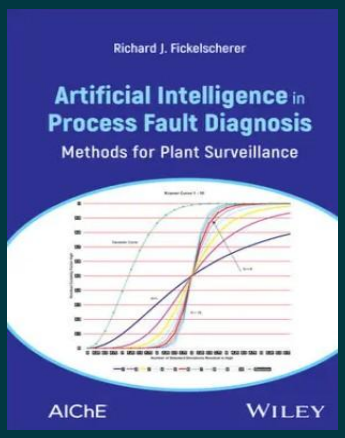
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eBook - Artificial Intelligence in Process Fault Diagnosis : Methods for Plant Surveillance

By Richard J. Fickelscherer

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Description

Automation has revolutionized every aspect of industrial production, from the accumulation of raw materials to quality control inspections. Even process analysis itself has become subject to automated efficiencies, in the form of process fault analyzers, i.e., computer programs capable of analyzing process plant operations to identify faults, improve safety, and enhance productivity. Prohibitive cost and challenges of application have prevented widespread industry adoption of this technology, but recent advances in artificial intelligence promise to place these programs at the center of manufacturing process analysis.

Artificial Intelligence in Process Fault Diagnosis brings together insights from data science and machine learning to deliver an effective introduction to these advances and their potential applications. Balancing theory and practice, it walks readers through the process of choosing an ideal diagnostic methodology and the creation of intelligent computer programs. The result promises to place readers at the forefront of this revolution in manufacturing.

About the Author

Richard J. Fickelscherer

Richard J. Fickelscherer, PhD, PE has worked on advanced process control and process monitoring programs at DuPont, Exxon, Merck Pharmaceuticals, Koch Industries, and FMC, and has since developed and patented a Fuzzy logic-based compiler program to automate process fault analysis.

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