A one-of-a-kind presentation of the major achievements in statistical profile monitoring methods

Statistical profile monitoring is an area of statistical quality control that is growing in significance for researchers and practitioners, specifically because of its range of applicability across various service and manufacturing settings. Comprised of contributions from renowned academicians and practitioners in the field, Statistical Analysis of Profile Monitoring presents the latest state-of-the-art research on the use of control charts to monitor process and product quality profiles. The book presents comprehensive coverage of profile monitoring definitions, techniques, models, and application examples, particularly in various areas of engineering and statistics.

The book begins with an introduction to the concept of profile monitoring and its applications in practice. Subsequent chapters explore the fundamental concepts, methods, and issues related to statistical profile monitoring, with topics of coverage including:

- Simple and multiple linear profiles
- Binary response profiles
- Parametric and nonparametric nonlinear profiles
- Multivariate linear profiles monitoring
- Statistical process control for geometric specifications
• Correlation and autocorrelation in profiles

• Nonparametric profile monitoring

Throughout the book, more than two dozen real-world case studies highlight the discussed topics along with innovative examples and applications of profile monitoring. *Statistical Analysis of Profile Monitoring* is an excellent book for courses on statistical quality control at the graduate level. It also serves as a valuable reference for quality engineers, researchers and anyone who works in monitoring and improving statistical processes.

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