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4.7. Questions to Ask 5. SETTING SPECIFICATIONS: ARBITRARY OR IS THERE A METHOD TO IT?; 5.1. Understanding Specifications; 5.2. Empirical Approach; 5.3. Functional Approach; 5.4. Minimum Life Cycle Cost Approach; 5.5. Questions to Ask; 6. HOW TO DESIGN PRACTICAL ACCEPTANCE SAMPLING PLANS AND PROCESS VALIDATION STUDIES?; 6.1. Single-Sample Attribute Plans; 6.2. Selecting AQL and RQL; 6.3. Other Acceptance Sampling Plans; 6.4. Designing Validation Studies; 6.5. Questions to Ask; 7. MANAGING AND IMPROVING PROCESSES: HOW TO USE AN AT-A-GLANCE-DISPLAY?; 7.1. Statistical Logic of Control Limits
7.2. Selecting Subgroup Size 7.3. Selecting Sampling Interval; 7.4. Out-of-Control Rules; 7.5. Process Capability and Performance Indices; 7.6. At-A-Glance-Display; 7.7. Questions to Ask; 8. HOW TO FIND CAUSES OF VARIATION BY JUST LOOKING SYSTEMATICALLY?; 8.1. Manufacturing Application; 8.2. Variance Components Analysis; 8.3. Planning for Quality Improvement; 8.4. Structured Studies; 8.5. Questions to Ask; 9. IS MY MEASUREMENT SYSTEM ACCEPTABLE AND HOW TO DESIGN, VALIDATE, AND IMPROVE IT?; 9.1. Acceptance Criteria; 9.2. Designing Cost-Effective Sampling Schemes
9.3. Designing a Robust Measurement System 9.4. Measurement System Validation; 9.5. Repeatability and Reproducibility (R&R) Study; 9.6. Questions to Ask; 10. HOW TO USE THEORY EFFECTIVELY?; 10.1. Empirical Models; 10.2. Mechanistic Models; 10.3. Mechanistic Model for Coat Weight CV; 10.4. Questions to Ask; 11. QUESTIONS AND ANSWERS; 11.1. Questions; 11.2. Answers; APPENDIX: TABLES; REFERENCES; INDEX

Sommario/riassunto

HELPS YOU FULLY LEVERAGE STATISTICAL METHODS TO IMPROVE INDUSTRIAL PERFORMANCE Industrial Statistics guides you through ten practical statistical methods that have broad applications in many different industries for enhancing research, product design, process design, validation, manufacturing, and continuous improvement. As you progress through the book, you'll discover some valuable methods that are currently underutilized in industry as well as other methods that are often not used correctly. With twenty-five years of teaching and consulting experience, author Anand Jogleka
