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| Nota di contenuto | SIMULATION-BASED LEAN SIX-SIGMA AND DESIGN FOR SIX-SIGMA; CONTENTS; PREFACE; ACKNOWLEDGMENTS; PART I SIX-SIGMA FUNDAMENTALS; 1 Six-Sigma Fundamentals; 1.1 Introduction; 1.2 Quality and Six-Sigma Defined; 1.3 Introduction to Process Modeling; 1.4 Introduction to Business Process Management; 1.5 Measurement Systems Analysis; 1.6 Process Capability and Six-Sigma Process Performance; 1.7 Overview of Six-Sigma Improvement: DMAIC; 1.8 Six- Sigma Goes Upstream: Design for Six-Sigma; 1.9 Summary; 2 Lean Six- Sigma Fundamentals; 2.1 Introduction; 2.2 Lean Six-Sigma Approach; 2.3 LSS-Enhanced DMAIC 2.4 Lean Manufacturing2.5 Value Stream Mapping; 2.6 Lean Techniques; 2.7 Summary; 3 Design for Six-Sigma Fundamentals; 3.1 Introduction; 3.2 Transaction-Based Design for Six-Sigma; 3.3 Service Design for Six-Sigma; 3.4 Service DFSS: The ICOV Process; 3.5 Service DFSS: The ICOV Process in Service Development; 3.6 Summary; PART II SIMULATION FUNDAMENTALS; 4 Basic Simulation Concepts; 4.1 Introduction; 4.2 System Modeling; 4.3 Simulation Modeling; 4.4 The Role of Simulation; 4.5 Simulation Software; 4.6 Summary; 5 Discrete |

1.

| | Event Simulation; 5.1 Introduction; 5.2 System Modeling with DES 5.3 Elements of Discrete Event Simulation5.4 DES Mechanisms; 5.5 Manual Simulation Example; 5.6 Computer DES Example; 5.7 Summary; 6 The Simulation Process; 6.1 Introduction; 6.2 Categories of Simulation Studies; 6.3 Systematic Simulation Approach; 6.4 Steps in a Simulation Studies; 6.5 Example: Applying Simulation Process to a Hospital Emergency Room; 6.6 Summary; 7 Simulation Analysis; 7.1 Introduction; 7.2 Terminating Versus Steady-State Simulation; 7.3 Determination of Simulation Run Controls; 7.4 Variability in Simulation Outputs; 7.5 Simulation-Based Optimization PART III SIMULATION-BASED SIX-SIGMA AND DESIGN FOR SIX-SIGMA8 Simulation-Based Six-Sigma Road Maps; 8.1 Introduction; 8.2 Lean Six-Sigma Process Overview; 8.3 Simulation-Based Lean Six-Sigma Road Map; 8.4 Simulation-Based Design for a Six-Sigma Road Map; 8.5 Summary; 9 Simulation-Based Lean Six-Sigma Application; 9.1 Introduction; 9.2 3S-LSS Integrated Approach; 9.3 3S-LSS Case Study; 9.4 Summary; 10 Simulation-Based Design for Six-Sigma Application; 10.1 Introduction; 10.2 3S-DFSS Process; 10.3 3S-DFSS Case Study: Dental Clinic Redesign; 10.4 Summary 11 Practical Guide to Successful Development of Simulation-Based Six- Sigma Projects11.1 Introduction; 11.2 Characteristics of a 3S Application; 11.3 Ingredients for a Successful 3S Program; 11.4 Framework for Successful 3S Implementation; 11.5 3S Project Charter; 11.6 3S Software Tools; APPENDIX A BASIC STATISTICS; APPENDIX B RANDOM NUMBERS; APPENDIX C AXIOMATIC DESIGN; APPENDIX D TAGUCHI'S QUALITY ENGINEERING; APPENDIX E PROCESS MAPPING; APPENDIX F VENDORS; REFERENCES AND FURTHER READING; INDEX |
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| Sommario/riassunto | This is the first book to completely cover the whole body of knowledge of Six Sigma and Design for Six Sigma with Simulation Methods as outlined by the American Society for Quality. Both simulation and contemporary Six Sigma methods are explained in detail with practical examples that help understanding of the key features of the design methods. The systems approach to designing products and services as well as problem solving is integrated into the methods discussed. |