1. Record Nr. UNISALENTO991003234869707536 Autore Taghizadegan, Salman, 1957-Titolo Essentials of lean six sigma [e-book] / Salman Taghizadegan Amsterdam; Boston, Mass.: Elsevier, c2006 Pubbl/distr/stampa **ISBN** 9780123705020 0123705029 Descrizione fisica xvii, 275 p.: ill.; 24 cm 658.4013 Disciplina 658.562 Six sigma (Quality control standard) Soggetti Quality control - Standards Electronic books. Lingua di pubblicazione Inglese **Formato** Risorsa elettronica Livello bibliografico Monografia Note generali Includes index Nota di contenuto PART I: Statistical Theory and Concepts -- Chapter 1. Introduction to Essentials of Lean Six Sigma (6) Strategies -- Chapter 2. Statistical Theory of Lean Six Sigma (6) Strategies -- Chapter 3. Mathematical Concepts of Lean Six Sigma Engineering Strategies -- PART II: Six Sigma Engineering and Implementation -- Chapter 4. Six Sigma Continuous Improvement -- Chapter 5. Design for Six Sigma --Chapter 6. Design for Lean/Kaizen Six Sigma -- Chapter 7. The Roles and Responsibilities to Six Sigma Philosophy and Strategy -- Chapter 8. The Road Map to Lean Six Sigma Continuous Improvement Engineering Strategies -- PART III: Case Studies -- Chapter 9. Case Study -- 9.1: Methodology for Machine Downtime -- Reduction. A Green Belt methodology -- Case Study 9.2: Methodology for Defect Reduction in Injection Molding Tools Life time. A Black Belt methodology. -- Chapter 10. Case Study: Methodology for Defect Reduction in Injection Molding a Multi-Factor Central Composite Design Approach. A Master Black Belt methodology Six Sigma is a management program that provides tools that help Sommario/riassunto

manufacturers obtain efficient, stream-lined production to coincide with ultimate high quality products. Lean Six Sigma will show how the well-regarded analytical tools of Six Sigma quality control can be

successfully brought into the well-established models of lean manufacturing, bringing efficient, stream-lined production and high quality product readily together. This book offers a thorough, yet concise introduction to the essential mathematics of Six Sigma, with solid case examples from a variety of industrial settings, culminating in an extended case study. Various professionals will find this book immensely useful, whether it be the industrial engineer, the industrial manager, or anyone associated with engineering in a technical or managing role. It will bring about a clear understanding of not only how to implement Six Sigma statistical tools, but also how to do so within the bounds of Lean manufacturing scheme. It will show how Lean Six Sigma can help reinforce the notion of less is more, while at the same time preserving minimal error rates in final manufactured products. \*Reviews the essential statistical tools upon which Six Sigma rests, including normal distribution and mean deviation and the derivation of 1 sigma through six sigma \*Explains essential lean tools like Value-Stream Mapping and quality improvement tools like Kaizen techniques within the context of Lean Six Sigma practice \*Extended case study to clearly demonstrate how Six Sigma and Lean principles have been actually implemented, reducing production times and costs and creating improved product quality