Record Nr. UNINA9910437892303321 Autore Chorafas Dimitris N Titolo Quality control applications / / Dimitris N. Chorafas London;; New York,: Springer, 2012, c2013 Pubbl/distr/stampa **ISBN** 1-283-61194-5 9786613924391 1-4471-2966-0 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (327 p.) Springer series in reliability engineering, , 1614-7839 Collana Disciplina 658.5 658.562 Soggetti Quality control Production management - Quality control Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Part One: Product Quality.-1.Product Assurance -- 2.Quality Control --3. Designing for Quality -- Part Two: Service Quality -- 4. Service Assurance. A Case Study -- 5.Man-Made Catastrophes are the Result of Wanting Service Assurance -- Part Three: Product Reliability -- 6. Reliability Assurance -- 7. Reliability and Life-Cycle Maintenance --Part Four: Statistical Inference -- 8. A Brief Introduction to Stochastic Thinking -- 9. Sampling Methods -- 10. Operating Characteristic Curves -- 11. Experimental Design and Latin Squares -- Part Five: Statistical Quality Control -- 12. Fundametnals of Statistical Quality Inspection --13. Quality Control Charts By Variables -- 14. Quality Control Charts by Attributes -- 15. The Culture of Statistical Quality Control. Sommario/riassunto Quality control is a constant priority in electrical, mechanical, aeronautical, and nuclear engineering - as well as in the vast domain of electronics, from home appliances to computers and telecommunications. Quality Control Applications provides guidance and valuable insight into quality control policies; their methods, their implementation, constant observation and associated technical audits. What has previously been a mostly mathematical topic is translated here for engineers concerned with the practical implementation of

quality control. Once the fundamentals of quality control are

established, Quality Control Applications goes on to develop this knowledge and explain how to apply it in the most effective way. Techniques are described and supported using relevant, real-life, case studies to provide detail and clarity for those without a mathematical background. Among the many practical examples, two case studies dramatize the importance of quality assurance: A shot-by-shot analysis of the errors made in the Fukushima Daiichi nuclear disaster; and the engineering failure with new technology due to the absence of quality control in an alternative energy project. This clear and comprehensive approach makes Quality Control Applications an essential reference for those studying engineering as well industry professionals involved in quality control across product and system design.