Record Nr. UNINA9910350241603321 Autore Karim Md. Rezaul **Titolo** Reliability and Survival Analysis / / by Md. Rezaul Karim, M. Ataharul Islam Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-13-9776-7 Edizione [1st ed. 2019.] 1 online resource (xvii, 252 pages): illustrations Descrizione fisica 536.7 Disciplina **Statistics** Soggetti Social medicine Statistics for Life Sciences, Medicine, Health Sciences Statistics for Business, Management, Economics, Finance, Insurance Statistics for Engineering, Physics, Computer Science, Chemistry and **Earth Sciences** Medical Sociology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1: Reliability and Survival Analysis: Concepts and Definitions --Chapter 2: Mean Lifetime and Residual Lifetime -- Chapter 3: Probability Distributions of Lifetimes (Uncensored) -- Chapter 4: Censoring Mechanisms -- Chapter 5: Probability Distributions of Lifetimes under Censoring Schemes -- Chapter 6: Nonparametric Methods -- Chapter 7: Parametric Methods -- Chapter 8: Regression Models -- Chapter 9: Generalized Linear Models for Failure Times --Chapter 10: Components and Systems -- Chapter 11: Reliability Functions and Ageing Properties -- Chapter 12: Models for Production System -- Chapter 13: Stochastic Models -- Chapter 14: Further Topics -- References -- Appendix - A: Statistical Tables -- Appendix - B: Data Sets -- Appendix - C: R-Packages and Programming Codes -- Index. Sommario/riassunto This book presents and standardizes statistical models and methods that can be directly applied to both reliability and survival analysis. These two types of analysis are widely used in many fields, including

engineering, management, medicine, actuarial science, the

environmental sciences, and the life sciences. Though there are a

number of books on reliability analysis and a handful on survival analysis, there are virtually no books on both topics and their overlapping concepts. Offering an essential textbook, this book will benefit students, researchers, and practitioners in reliability and survival analysis, reliability engineering, biostatistics, and the biomedical sciences. .