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	Soggetti	Reliability (Engineering) - Statistical methods Distribution (Probability theory) Experimental design
	Lingua di pubblicazione	Inglese
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Reliability concepts -- Lifetime distributions -- Inference for parameters of life distributions -- Fundamentals of experimental design -- Further principles of experimental design -- Parametric regression models -- Semiparametric regression models -- Design of single testing condition reliability experiments -- Design of multi factor and multi level reliability experiments.
	Sommario/riassunto	Experimental design has been used extensively and successfully to aid in quality achievement; however, there have been fewer successful applications in reliability. Experiments in reliability are inherently different from other industrial experiments since lifetimes usually do not follow a normal distribution, which is often the assumption in experimental design. Written by internationally known experts in the fields of experimental design methodology and reliability data analysis, this book illustrates how experimental design and tests can improve the reliability of the outcome. Focusing on reliability applications and methods, this book describes and illustrates methods for designing experiments and analyzes the results when the response is a lifetime. This book is organized into four main parts: Part One begins with an introduction to reliability, lifetime distributions, and inference for parameter of lifetime distributions; Part Two focuses on design of experiments, optimal design, and robust design; Part Three features coverage of lifetime regression, parametric regression models, the Cox

Proportional Hazard Model, and design strategies for reliability achievement; and Part Four addresses accelerated testing, models for acceleration, and design of experiments for accelerated testing. The authors also utilize R, SAS®, and JMP® software throughout as appropriate, and a supplemental website contains the related data sets.