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Sommario/riassunto	"Most of the reliability literature is directed towards non repairable systems, that is, systems that fail are discarded. This book is mainly dedicated towards providing coverage to the reliability modeling and analysis of repairable systems that are repaired and not replaced when they fail. Most of the equipment - mechanical or otherwise -are repairable and are subjected to maintenance actions- reactive or proactive- at various levels. Maintenance actions are carried out either to preserve a system or to renovate it to a specified functionable state. Maintenance actions are also characterized by the degree (perfect or imperfect) to which a system can be restored, i.e., to an 'as good as new condition' (AGAN), or 'as bad as old condition' (ABAO). Mathematically perfect repair is modeled using a renewal process (RP). Since it represents much idealized situation, this model has restricted applications in the analysis of repairable systems. At the other extreme, the ABAO repair is mathematically modelled using a Non-Homogenous Poisson Process (NHPP). These assumptions are very unrealistic for probabilistic modeling and leads to major distortions in statistical analysis. This unique book provides a comprehensive framework for

the modeling and analysis of repairable systems considering both the non-parametric and parametric approaches to deal with the failure data. The book presents MCF based non-parametric approach with several illustrative examples and the generalized renewal process (GRP) based arithmetic reduction of age (ARA) models along with its applications to the systems failure data from aviation industry. The book also covers various multi-criteria decision-making (MCDM), integrated with repairable systems reliability analysis models to provide a much better insight into imperfect repair and maintenance data analysis. A complete chapter on an integrated framework for procurement process is added which will of a great assistance to the readers in enhancing the potential of their respective organization. This book also presents FMEA methods tailored for GRP based repairs. This text has primarily emerged from the industrial experience and research work of the authors. A number of illustrations have been included to make the subject lucid and vivid even to the readers who are relatively new to this area. Besides, various examples have been provided to display the applicability of presented models and methodologies to assist the readers in applying the concepts presented in this book."--
