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Titolo	Fatigue testing and analysis [e-book] : theory and practice / Yung-Li Lee ... [et al.]
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Altri autori (Persone)	Lee, Yung-Li.author
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Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Transducers and data acquisitions; Fatigue damage theories; Cycle counting techniques; Stress-based fatigue analysis and design; Strain-based fatigue analysis and design; Fracture mechanics and fatigue crack propagation; Fatigue of spot welds; Development of accelerated life test criteria; Reliability demonstration testing; Fatigue analysis in the frequency domain
Sommario/riassunto	This book is a summary of experimental and analytical techniques that are essential to students and practicing engineers for conducting mechanical component design and testing for durability. There is a serious need for engineers to have an overview on the entire methodology of durability testing and reliability to bridge the gap between fundamental fatigue research and its durability applications. Covers the useful techniques for component load measurement and data acquisition, fatigue properties determination, fatigue analysis, and accelerated life test criteria development, and, most importantly, test plans for reliability demonstrations. Written from a practical point of view, based on the authors' industrial and academic experience in automotive engineering design. Extensive practical examples are used to illustrate the main concepts in all chapters