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Autore	Stepinski Tadeusz
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Sommario/riassunto

"Structural Health Monitoring (SHM) is the interdisciplinary engineering field devoted to the monitoring and assessment of structural health and integrity. SHM technology integrates non-destructive evaluation techniques using remote sensing and smart materials to create smart self-monitoring structures characterized by increased reliability and long life. Its applications are primarily systems with critical demands concerning performance where classical onsite assessment is both difficult and expensive.Advanced Structural Damage Detection: From Theory to Engineering Applications is written by academic experts in the field and provides students, engineers and other technical specialists with a comprehensive review of recent developments in various monitoring techniques and their applications to SHM. Contributing to an area which is the subject of intensive research and development, this book offers both theoretical principles and feasibility studies for a number of SHM techniques.Key features: Takes a multidisciplinary approach and provides a comprehensive review of main SHM techniques Presents real case studies and practical application of techniques for damage detection in different types of structures Presents a number of new/novel data processing algorithms Demonstrates real operating prototypes Advanced Structural Damage Detection: From Theory to Engineering Applications is a comprehensive reference for researchers and engineers and is a useful source of information for graduate students in mechanical and civil engineering"
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