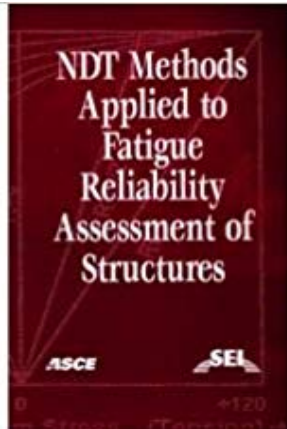


Non-Destructive Test (NDT) Methods Applied to Fatigue Reliability Assessment of Structures



This book is a collection of nine specific application cases of various non-destructive test (NDT) methods in fatigue and fracture reliability assessment of structures. The reader will find it useful in learning about areas where current methods have actually been applied in real world applications. Applications cited include problems, such as steel girder bridges, airframe systems, welded connections, and bridge components (including concrete slabs), which were subjected to fracture failure. Instructors and graduate students of structural engineering courses as well as structural engineers will find the fatigue reliability assessment extremely beneficial. A variety of NDT methods are included: structural monitoring; use of various methods for the identification of the extent of damage; acoustic emissions technique; electro-magnetic; portable hardness test; liquid penetrant; magnetic particle; radiography; residual stress by hole drill; and ultrasonic methods.

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