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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Requirements, Challenges and Summary of Hardware and Software Design for a WSN-based SHM System -- Enabling Network-wide and Event-triggered Wakeup -- Design of Distributed SHM Algorithms within WSNs-A Cluster-based Approach -- Design of Distributed SHM Algorithms with WSNs-A Networked-Computing Approach -- Realizing Fault-Tolerant SHM in WSNs -- Conclusions. .
Sommario/riassunto	This brief covers the emerging area of wireless sensor network (WSN)-based structural health monitoring (SHM) systems, and introduces the authors' WSN-based platform called SenetSHM. It helps the reader differentiate specific requirements of SHM applications from other traditional WSN applications, and demonstrates how these requirements are addressed by using a series of systematic approaches. The brief serves as a practical guide, explaining both the state-of-the-art technologies in domain-specific applications of WSNs, as well as the methodologies used to address the specific requirements for a WSN application. In particular, the brief offers instruction for problem formulation and problem solving based on the authors' own experiences implementing SenetSHM. Seven concise chapters cover the development of hardware and software design of SenetSHM, as well as in-field experiments conducted while testing the platform. The brief's

exploration of the SenetSHM platform is a valuable feature for civil engineers designing their own similar SHM products, and the various concrete examples of problem formulation and algorithm design will make this an essential read for practitioners, researchers and students alike.