

Emerging Design Solutions in Structural Health Monitoring Systems

Part of the Advances in Civil and Industrial Engineering (ACIE) Book Series

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Description:

Structural health monitoring is an exciting new field on the frontier of applied engineering. With the purpose of examining the health of standing buildings, aircrafts, and other complex structures using pre-installed sensors that provide stress and pressure data in real-time, this field allows structural-health experts to act as engineering “doctors.” These specialists diagnose potential problems in advance using complex algorithms and statistical modeling so that steps may be taken to prevent structural damage—or worse, loss of life.

Emerging Design Solutions in Structural Health Monitoring Systems seeks to advance cutting-edge research in the field, with a special focus on cross-disciplinary work involving recent advances in IT. This research has enabled structural-health experts to wield groundbreaking new models of artificial intelligence as a diagnostic tool capable of identifying future problems before they even appear.

Readers:

This publication serves as a broad overview of structural management science, as well as an on-ramp for a general engineering audience, including students, educators, and researchers.

ISBN: 9781466684904

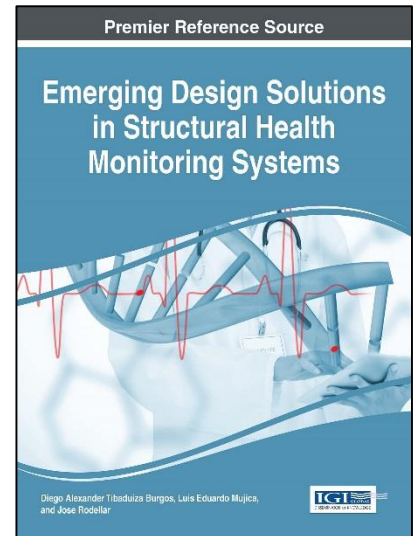
Release Date: June, 2015

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Pages: 328

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