

DIFFERENT TECHNIQUES OF STRUCTURAL HEALTH MONITORING

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ABSTRACT

Structures are normal or special; these are precious part and are promptly associated with living as well as non living things. Sometimes minute fault inside the structure might affect whole body and it would lead to collapse the structure which might create a significant loss of property and human beings too. So, increased awareness of structural Health Monitoring Techniques (SHM) gives an idea and remedies for the concerned defect due to aging, deterioration and fault during construction. Previous day's people used just a visual inspection for defect detection but extreme and worst damage in infrastructure leads to invent new technologies for the recognition of new methods on Structural Health Monitoring as a damage detection tools. Different kind of sensors is linked with computer system along with special hardware and software which gives the signature and helps to point out the risk zone. This paper emphasis on wired and wireless techniques under which several sub techniques like Impedance-Based, Nondestructive Evaluation using vibration signature, Limit strain measurement, Data fusion method, Inverse method etc studied and their comparative study on the performance based approach for the infrastructure like Building, Bridges, Towers are noted which most likely concerned with civil infrastructure. This paper mainly emphasis on the presence of different SHM Techniques briefly on one paper which might give access for knowing it in a glance.

KEYWORDS: Structural Health Monitoring (SHM), Wired Technique, Wireless Technique, Computer System, Software, Risk Zone