



**Innovation in Smart
Materials and Structural
Health Monitoring for
Composite Applications**

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ABSTRACT

Structural health monitoring (SHM) is an automated approach to determine any changes in the integrity of a mechanical system. The SHM system gives information in real time and online. The knowledge on Root Mean Square Deviation (RMSD) techniques is employed and presented in this writing. Besides that, SHM system in wind turbine system is becoming very important. This book places emphasize on the application of biocomposite turbine blades for vertical axis wind turbines. The dynamics characterization of mechanical system on biocomposite turbine blades is determined with several techniques. The SHM for biocomposite turbine blades is enhanced in order for it to become a micro energy harvester.

Keyword: Innovation; Smart materials; Structural health monitoring; Composite applications