

Structural Damage Detection Using Sensors Optimally Located

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Abstract : The measured data obtained from sensors in continuous monitoring of civil structures are mainly used for modal identification and damage detection. Therefore when modal identification analysis is carried out the quality in the identification of the modes will highly influence the damage detection results. It is also widely recognized that the usefulness of the measured data used for modal identification and damage detection is significantly influenced by the number and locations of sensors. The objective of this study is the numerical implementation of two widely known optimum sensor placement methods in beam-like structures

Keywords : optimum sensor placement, structural damage detection, modal identification, beam-like structures.

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