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عنوان مقاله:

Structural damage detection based on modal data via CSS optimization algorithm

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خلاصه مقاله:

Structural damage detection is one of the most important research areas in structural health monitoring. This paper proposes a novel model updating approach for detecting structural damage. In the paper, the correlation between numerical and experimental data is measured using the modal assurance criteria, and an objective function is developed based on this correlation. Then the damage detection problem is solved via the CSS optimization algorithm, and damage location and intensity is determined. Three numerical examples are studied to further show the efficiency of the method, and the results are presented. All the results prove the robustness and effectiveness of .the proposed damage detection scheme

کلمات کلیدی:

Damage detection, Model updating, Modal assurance criteria, Charged system search

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