

## Seismic damage detections of nonstructural components in building structure via shape-based vision system

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### ABSTRACT

This study aims to develop a shape-based VDS capable of measuring multi-point displacements, optimized for detecting seismic damage in nonstructural components. By utilizing shape information of the nonstructural components within regions of interest, multiple feature points at user-specified locations can be extracted and tracked, allowing for the detection and monitoring of seismic damage with a single camera. The applicability of the proposed vision system was evaluated through shake table tests on a two-story moment frame equipped with partition walls and a ceiling.

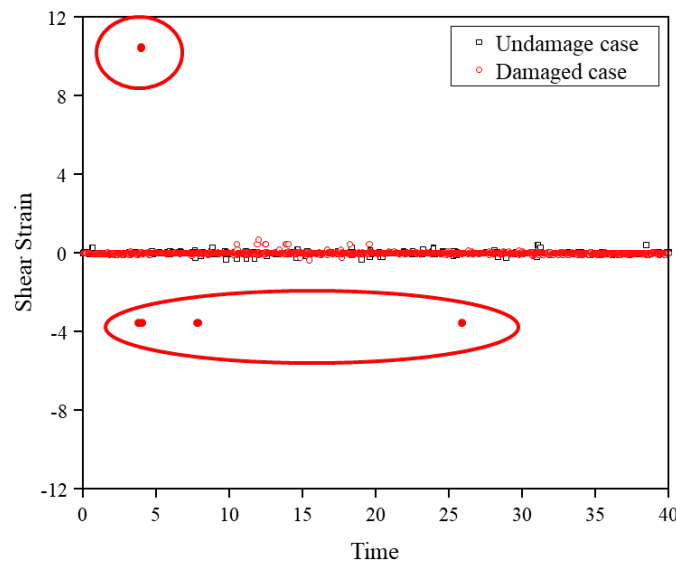


Fig. 1 Shear strain of exterior dry walls for detecting seismic damages

### REFERENCES

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