

## A Safety-Door for Earthquake Disaster Prevention - Part II

**Authors :** Daniel Y. Abebe, Jaehyouk Choi

**Abstract :** The safety of door has not given much attention. The main problem of doors during and after earthquake is that they are unable to be opened because deviation from its original position by the lateral load. The aim of this research is to develop and evaluate a safety door that keeps the door frame in its original position or keeps its edge angles perpendicular during and post-earthquake. Nonlinear finite element analysis was conducted in order to evaluate the structural performance and behavior of the proposed door under both monotonic and cyclic loading.

**Keywords :** safety-door, earthquake disaster, low yield point steel, passive energy dissipating device, FE analysis

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