**عنوان مقاله:**

Sliding Mode Control of Civil Engineering Structures

**محل انتشار:**

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**خلاصه مقاله:**

In this paper, the application of the sliding mode control (SMC) scheme is discussed in a systematic manner for controlling the vibration of a three story building with a hydraulic actuator installed at the first floor. It's shown that the application of the SMC theory for buildings with hydraulic actuator reduces the amounts of responses in the buildings. In order to investigate the effect of the weighting matirx two different cases are considered. For examining the performance of the proposed control algorithm, three different earthquakes inputs, two near fault and one far fault, are considered. The results indicates that the designed sliding surface is very effective in reducing the responses.

**کلمات کلیدی:**

Sliding mode control, Structural Control, Response Reduction, sliding surface

**لینک ثابت مقاله در پایگاه سیویلیکا:**