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Guided By

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**Project Title**

**EXPERIMENTAL & ANALYTICAL EVALUATION OF BASE  
ISOLATED WATER TANK STRUCTURE**

**Abstract:**

The safety of a water tank will depend upon the use of seismic protection system and initial architectural and structural configuration of the water tank and design and their ductile performance under seismic loading, so in our study we use friction pendulum system which is the one type of base isolation and which is the one of the seismic protection system for protect water tank and any kind of structure. Base Isolation is the concept of protecting a water tank from the damaging effects of an earthquake by introducing some type of support that isolates it from the shaking ground. The idea behind base isolation is to detach the water tank from the ground in such a way that earthquake motions are not transmitted up through the water tank or at least greatly reduced. The main object of present study to development of a base isolation system to physically demonstrate the concept of friction pendulum single and double sliding system in laboratory. The responses of a water tank with & without base isolation are measured on shake table simultaneously using the accelerometer attached to the model structures. Further the analytic model of base isolation water tank is prepared and analyses using SAP 2000. The results are verified with experiment results.

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