Department : **Civil**

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Group No: **18**

Guided By

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Project Title

"EXPERIMENTAL AND ANALYTICAL EVALUATION OF BASE ISOLATED BUILDING STRUCTURE"

Abstract:

Among the natural calamities, earthquakes are the most destructive, in terms of loss of life and destruction of property. The rising frequency of earthquake has made it imperative to focus our attention on all aspects of pre-disaster preparedness from seismic studies as if we are standing on earth earthquakes do not harm us much, but if we are standing inside a building then we do need to worry as the brutal impact of earthquake is seen on the buildings. So we do need to study the building and for that the structural aspects are to be taken into consideration. The one type of base isolation system is Friction Pendulum Bearing in which the superstructure is isolated from foundation. This study represents development of a single, double sliding surface and fixed model with concept of friction pendulum in laboratory. The study presents development of a base isolation system to physically demonstrate the concept of Friction Pendulum Bearing in the laboratory for earthquake engineering education. Single and double concave FP bearing allows for significantly larger displacements for building structure. Base isolation system measured on shake table using accelerometer. Further the analytical model of base isolation building structure is prepared and analyses using SAP2000. The results are verified with experimental results.

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