**DESIGN AND ANALYSIS OF MULTISTOREYED BUILDING UNDER STATIC AND
DYNAMIC LOADING CONDITIONS USING ETABS**

ABSTRACT

Structural analysis is mainly concerned with finding out the behavior of a structure when subjected to some action. This action can be in the form of load due to weight of things such as people, furniture, snow etc. or some other kind of excitation such as earthquake, shaking of the ground due to a blast nearby etc. In essence all these loads are dynamic including the self-weight of the structure because at some point in time these loads were not there. The distinction is made between the dynamic and static analysis on the basis of whether the applied action has enough acceleration in comparison to the structure's natural frequency. If a load is applied sufficiently slowly, the inertia forces (Newton’s second law of motion) can be ignored and the analysis can be simplified as static analysis. Structural dynamics, therefore, is a type of structural analysis which covers the behavior of structures subjected to dynamic (actions having high acceleration) loading. Dynamic loads include people, wind, waves, traffic, earthquake and blasts. Any structure can be subjected to dynamic loading. Dynamic analysis can be used to find dynamic displacements, time history, and modal analysis.

In this project a residential of G+13 multi-storybuilding is studied for earth quake loads using ETABS.Assuming that material property is linear static and dynamicanalysis is performed. These non-linear analysis are carried outby considering severe seismic zones and the behavior is assessedby taking types II soil condition. Different response like,displacements, base shear are plotted.