**PUSH OVER ANALYSIS OF G+10 STORY BUILDING BY ETABS**

**ABSTRACT**

 Open first storey is a typical feature in the modern multistory constructions in urban India. Such features are highly undesirable in buildings built in seismically active areas; this has been verified in numerous experiences of strong shaking during the past earthquakes. Though multistoried buildings with open (soft) ground floor are inherently vulnerable to collapse due to earthquake load, their construction is still widespread in the developing nations like India. Social and functional need to provide car parking space at ground level and for offices open stories at different level of structure far out-weighs the warning against such buildings from engineering community. With ground soft storey for office space open floor is required on different levels of building. In present thesis we are concentrating on finding the best place for soft stories in high rise buildings.

With the availability of fast computers, so-called performance based seismic engineering (PBSE), where inelastic structural analysis is combined with seismic hazard assessment to calculate expected seismic performance of a structure, has become increasingly feasible. With the help of this tool, structural engineers too, although on a computer and not in a lab, can observe expected performance of any structure under large forces and modify design accordingly. PBSE usually involves nonlinear static analysis, also known as PUSHOVER ANALYSIS.