**NON LINEAR STATIC ANALYSIS FOR RC FRAMED RESIDENTIAL BUILDING USING SAP2000**

**ABSTRACT**

This research presents the steps used in performing a pushover analysis of a simple three-dimensional building of existing five storied located in seismic zone-v. SAP2000, a state of the art, general purpose three dimensional structural analysis program, is used as a tool for performing the Pushover Analysis. According to pushover analysis the vertical distribution of static monotonically increasing lateral loads is applied to a mathematical model of the structure. The loads are increased until the peak response of the structure is obtained on a base shear vs. roof displacement plot. From this plot, and other parameters representing the expected, or design, earthquake, the maximum deformations the structure is expected to undergo during the design seismic event can be estimated. After completion of pushover analysis the performance point and developing of plastic hinges for each storey can be identified