

## ABSTRACT

Now a day's high-rise structures are increasing more due to increase in population. There are different types of analysis are there out of this one of the important analysis is Model analysis. Model analysis has become a major technique to determine the dynamic characteristics of engineering structures and its components. Analysis and design of a high rise RCC/Steel for Residential building located on hard soil. The framing system of the building is moment resisting frames with brick masonry.

In the model analysis of frames, the main aim is to determine the natural mode shapes and frequencies of an object or structure during free vibration. The model analysis of frames requires inclusion of axial effect in the stiffness and mass matrices. It also requires a co-ordinate transformation of the nodal or local co-ordinates to global co-ordinates. The analysis is performed using Model Analysis. The physical interpretation of the eigen values and eigenvectors which come from solving the system are that they represent the frequencies and corresponding mode shapes. The objective of this project is to study the, frequency and mode shape of plane frames. Formulation of stiffness matrix and mass matrix are to be done using direct stiffness method using ANSYS codes.

**Key words:** Frame, Finite element, Model analysis.