ANALYSIS OF G+20 RC BUILDING IN DIFFERENT ZONES USING ETABS

ABSTRACT

In the present scenario of construction industry, the buildings that are being constructed are gaining significance, in general, those with best possible outcomes with reference to optimal sizing and reinforcing of the structural elements, mainly beam and column members in multi-bay and multi–storey RC structures. Optimal sizing incorporates optimal stiffness co-relation among structural members and results in cost savings over the typical state-of-the practice design solutions. “Optimization” means making things the best.

The race towards new heights and architecture has not been without challenges. When the building increases in height, the stiffness of the structure becomes more important. Tall structures have continued to climb higher and higher facing strange loading effects and very high loading values due to dominating lateral loads. The design criteria for tall buildings are strength, serviceability, stability and human comfort. Thus the effects of lateral loads like wind loads, earthquake forces are attaining increasing importance and almost every designer is faced with the problem of providing adequate strength and stability against lateral loads.

Effect of lateral load on moments, axial forces, shear force, base shear, maximum storey drift and tensile forces on structural system are studied and also comparing the results of zone 2 and zone 5.