NATIONAL CONFERENCE ON INNOVATIVE TRENDS IN ENGINEERING & TECHNOLOGY – NITET-18
16-17th March 2018
NOVATEUR PUBLICATIONS
International Journal Of Innovations in Engineering Research And Technology [IJIERT]
ISSN: 2394-3696

ANALYSIS OF PARTIALLY BRACED MULTISTOREYED BUILDING FRAMES SUBJECTED TO GRAVITY AND EARTHQUAKE LOADS

TRUPTI D.MASLEKAR[1],
[1] Asst.Professor, A.G.Patil Institute of Technology, Solapur University, Solapur, India

DEEPAK D.MASLEKAR[2]
[2]Research Scholar, Indian institute of technology Bombay, India

ABSTRACT
The structure in high seismic areas may be susceptible to the severe damage. Along with gravity load structure has to withstand to lateral load which can develop high stresses. Now-a-days, shear wall in R.C.structure and steel bracings in steel structure are most popular system to resist lateral load due to earthquake, wind, blast etc. bracing is a highly efficient and economical method of resisting horizontal forces in a frame structure. Bracing is efficient because the diagonals work in axial stress and therefore call for minimum member sizes in providing stiffness and strength against horizontal shear. Through the addition of the bracing system, load could be transferred out of the frame and into the braces, by passing the weak columns while increasing strength. In this study R.C.C. building is modeled and analyzed for 4-bay and 5-bay G+11 structure in three Parts viz.,
(i) Model without RC bracing (bare frame), (ii) Model completely RC braced (fully braced frame), (iii) Model with partially RC baywise braced frames. The computer aided analysis is done by using STAAD-PRO to find out the effective lateral load system during earthquake in high seismic areas.