

Seismic Evaluation with Shear Walls and Braces for Buildings

Authors : R. S. Malik, S. K. Madan, V. K. Sehgal

Abstract : Reinforced concrete (RCC) buildings with dual system consisting of shear walls and moment resisting frames or braces and moment resisting frames have been widely used to resist lateral forces during earthquakes. The two dual systems are designed to resist the total design lateral force in proportion to their lateral stiffness. The response of the combination of braces and shear walls has not yet been studied therefore has practically no work to refer to. The combination may prove to be more effective in lateral load resistance by employing the peculiar advantages of shear walls and braces simultaneously and may also improve the architectural appearance of structures. This concept has been applied to regular RCC buildings provided with shear walls, braces, and their combinations.

Keywords : dynamic analysis, displacement, pushover analysis, dual structures, storey drift

Conference Title : ICSOC 2015 : International Conference on Service Oriented Computing

Conference Location : Singapore, Singapore

Conference Dates : January 08-09, 2015