

Comparative Study of R.C.C. Steel and Concrete Building

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Abstract : Steel concrete composite construction means the concrete slab is connected to the steel beam with the help of shear connectors so that they act as a single unit. In the present work, steel concrete composite with RCC options are considered for comparative study of G+9 story commercial building which is situated in earthquake zone-III and for earthquake loading, the provisions of IS: 1893(Part1)-2002 is considered. A three dimensional modeling and analysis of the structure are carried out with the help of SAP 2000 software. Equivalent Static Method of Analysis and Response spectrum analysis method are used for the analysis of both Composite & R.C.C. structures. The results are compared and it was found that composite structure is more economical.

Keywords : composite beam, column, RCC column, RCC beam, shear connector, SAP 2000 software

Conference Title : ICCSEE 2014 : International Conference on Civil, Structural and Earthquake Engineering

Conference Location : Paris, France

Conference Dates : April 28-29, 2014