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# Comparative Analysis of CFST and RCC Structures Subjected to Seismic Loading

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**Abstract :** One of the main problems that Civil Engineers face today is to construct a structure that has the ability to withstand heavy seismic forces with overall cost of construction being less. Composite construction is one of the methods that satisfy this requirement. Steel has excellent resistance to tensile loading while concrete is good in compression. Steel gives ductility to structure while concrete is resistant to corrosion. Composite construction uses the greatest possible advantages of both steel and concrete. In this paper a comparison of the seismic performance of a G+9 Storey reinforced concrete and composite building having same plan configuration located in seismic zone III is done. In the composite building the columns are made of concrete filled steel tube section (CFST). ETABS software is used for seismic analysis of the reinforced concrete and composite structures. The structural behavior of both the structures under equivalent static method is compared and the results show that composite structure performs better under seismic loading.

**Keywords :** Composite; CF Seismic Analysis; Drift; Equivalent Static Analysis.

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