

# **Analysis of Reinforced Concrete Building for Strong Column and Weak Beam Behaviour**

by

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# ***Analysis of Reinforced Concrete Building for Strong Column and Weak Beam Behaviour***

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## **ABSTRACT**

*During earthquake, building failure occurs due to the failure of Columns under lateral load. To avoid this, seismic design of building requires the formation of plastic hinges in beams before plastic hinges form in columns. This mechanism is often referred to as “Strong Column - Weak Beam” Mechanism.*

*This paper deals with the analysis of Strong Column and Weak Beam mechanism in Reinforced Concrete buildings by analysing the effects of ‘Area moment of Inertia’, ‘Reinforcement’ and ‘lengths’ of members of the buildings. The condition for Strong Column and Weak beam given in IS 13920:2016 i.e. ratio of summation of moments of columns to that of a beams at a joint should be greater than or equal to 1.4 is also verified.*

**Keywords:** *Strong Column - Weak Beam, hinges, moments.*

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