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Performance of Different Shapes of Building with Different Positions, Shapes of Outrigger System

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Abstract: *In rapidly growing construction industry, to meet all structural safety demands, in tall buildings, some efficient systems like outriggers are proposed. Outrigger is the key structure component which reduces rotation in the building. It is an efficient system which depends on very simple principle but at the same time, its analysis and design, is very complicated in the practice. When the outrigger is incorporated in the building, it enhances as well as threatens the performance of structure in different ways. The main aim of this project is to understand the exact impact of the provision of the outrigger system in the tall building. For this purpose, 8 buildings with different specifications and different outrigger systems are modelled by using ETABS software and are analysed by using Response Spectrum Method. The overturning moments, maximum average displacements in building, drifts and bending moments in columns, axial force in columns are critically analysed to study the influence of outrigger system.*

Keywords: Outrigger System, ETABS, Response Spectrum Analysis

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