

Analysis Dynamic Behaviour of Diagrid Structural System

Anjali Bhimrao Patil¹ Prof. Dr. P. P. Saklecha², Prof. V. A. Kalmegh³

PG Student, Department of Civil Engineering¹

Professor, Department of Civil Engineering^{2,3}

Bapurao Deshmukh College of Engineering, Wardha, Maharashtra, India

Abstract: Multi-story building construction is quickly rising over the world. Because of the structural efficiency and aesthetic possibilities given by the system's distinctive geometric layout, the diagrid structural system has been frequently adopted for modern tall structures. Diagrid is a structural method for skyscrapers that consists of triangulated beams, either straight or curved, and horizontal rings. In general, digrid structures employ less structural material than traditional structural systems made up of orthogonal components. The diagrid system's structural efficiency reduces the amount of interior columns, allowing for greater freedom in plan design. The idea of the diagrid structural system is investigated in this journal through a literature study, and the best configuration for buildings and diagrid placement is determined by comparing conventional and diagrid structures with the same plan area using STAAD Pro software.

Keywords: Diagrids, Storey Displacement, Storey Drift, Design Base Shear

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