



Proceedings of
**INTERNATIONAL CONFERENCE ON ADVANCES IN
MECHANICAL & CIVIL ENGINEERING - 2023**



Organized by: Department of Mechanical & Civil Engineering



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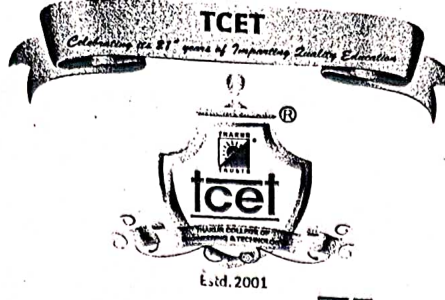
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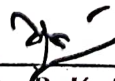
14th International & National Conferences and Workshops

IC-AMCE 2023

Certificate

APPRECIATION

This is to certify that Dr./Mr./Ms. Jaydeep Chougale has presented / participated / contributed for a FLP length paper with the title STUDY OF PLANNING & DESIGN OF A COMMERCIAL STRUCTURE in the International Conference on Advances in Mechanical & Civil Engineering (IC-AMCE 2023) organized during February, 24th & 25th, 2023 at Thakur College of Engineering and Technology, Kandivali (E), Mumbai.


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STUDY OF PLANNING & DESIGN OF A COMMERCIAL STRUCTURE

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Abstract— Planning and design of Commercial building structures is increasingly becoming one of the most challenging task in today's world. An engineer has to carefully take into consideration while designing a building structure such as basement, shear wall, lift, escalators taking into consideration the aesthetics of the building proposed by an architect. Building frame in the three-dimensional structure as space which consists of rigidly interconnected beams, slab & columns. It produces greater number of the redundancy thus reduces the moment & facilitates the even distribution of the load. This project will enable us to acquire knowledge on how to work with multiple requirements from multiple people involved in the project and perform proper analysis & design a building according to the client's preferences. The process of designing commences with planning and designing of the structure which has been done by taking consideration of various Indian Standard Codes. Detailed Architectural drawing pertaining to the structural drawing. The planning & design of the structural members will be done by software's like AutoCAD & Etabs. Comparing various models of buildings structures, primarily to meet its functional requirements but also satisfying the outer looks. Initially, the requirements proposed by the client has to be taken into consideration. After this we need to carefully consider all the parameters of building the structure safely, responsibly while also satisfying the client's requirements. These requirements are in most cases vague, ambiguous and even unacceptable at first from an engineering perspective. The role of an engineer is in carefully negotiating and finding a way to turn these requirements into a solid plan with proper numbers and calculations backing it up. This study focuses on various factors need to consider from aesthetic, strength and durability point of view while for planning, analysis and design of commercial structures.

Keywords— *Planning Analysis Design Software*

I. INTRODUCTION

In recent time planning and designing a commercial structures is becoming a challenge, to adjust the design parameters according to architecture aspects to get an aesthetic view to the structure and to fulfill the complex architectural design. Commercial structure means a structure designed or used for human habitation, or human occupancy for industrial, educational, assembly, professional or commercial purposes. This project deals with the study of planning, analysis and designing of a shopping mall. As an engineer we have to take into consideration all parameters required for getting a durable and an aesthetic structure. With this project we aim to overcome all the difficulties faced while planning and designing a complex structures. In this project the software we going to use AutoCAD for planning, and Etabs for modelling and analysing the structural design.

II. SITE DETAILS CONSIDERATIONS

A. Selection of A Plot

A commercial building's worth is influenced by its position, including whether it is in the middle of the area, on the boundaries, on the main road, or off the main road. A great commercial building should be placed in the centre of the neighbourhood and along the main road. The project's chosen land is in the city's centre, in the Mumbai Suburbs neighbourhood of Malad (East), next to the Western Express Highway. It is also just 500 metres from a metro stop. As a result, choosing this plot can satisfy the needs of the majority of the city's residents.

B. Survey of Plot

For surveyors, measuring vast distances and greater areas has always been a difficult task because it takes more time, is difficult to do in bad weather, requires the use of inaccurate instruments, etc. Also most of the time the permission is been