VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JNANA SANGAMA", MACHHE, BELAGAVI – 590018, KARNATAKA

2021-2022

Project Report

on

"ANALYSIS AND DESIGN OF G+2 RESIDENTIAL BUILDING USING ETABS"

Submitted in partial fulfilment of the requirement for the award of degree

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

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CERTIFICATE

rtified that a project report on entitled **"ANALYSIS AND DESIGN OF G+2 RESIDENTIAL DING USING ETABS"** has been successfully carried out by **ROSHAN MAHATO SINGH SV18CV029), SANDEEP KUMAR C (1SV18CV030), VISHWANATHA H P (1SV18CV036), DEEPIKA JAIN (1SV19CV406)** students of **Shridevi Institute of Engineering and Technology, Tumakuru - 72106,** in partial fulfillment of project for the award of **Bachelor of Engineering in Civil Engineering** f the **Visvesvaraya Technological University, Jana Sangama, Belagavi -590018** during the academic ear **2021-2022**. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the Department library. The report has been approved as it satisfies the academic requirement in respect of project on current topic prescribed for B.E Degree.

Radhika T.N. 25/7/22		
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Abstract

ETABS is a Design and Analysis software which is used for "Extended Three Dimensional Analysis of Building Systems". This software is useful in the design of high rise multi-floored building in a systematic manner. In this study we considered (G+2) Residential building, where in we need to Analysis all the design aspect and Stability condition of building in natural calamities. Plan of the building is drafted by using AutoCAD which is then transferred for Analysis in ETABS. Placement of beam and column was also done with dimension and spacing consideration. the stability is often governed using this software as this helps us to know beforehand the sustainability of building and the functioning age. Analysis saves the cost of construction by designing the building in the same manner as required by the specification. Indian Standards asspecified are also taken care of and designing is done in accordance to it so as to avoid the deformation if any. The designedand analyses of building frame has been performed using ETABS software. In our project which is "(G+2) Residential building", we are considering the design as well as analysis for both gravity and lateral loads as stated by Indian Standards. With the help of this software building can be analyzed before the construction, and we can check the failure in the analysisand redesign them, so that failure can be prevented. Once we get the results construction can be done according to design. This project is designed as per INDIAN CODES – IS 1893 part II: 2002, IS 456:2000.

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