# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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



2022-2023 Project Report on

# "ANALYSIS AND DESIGN OF G+3 RESIDENTAIL BUILDING USING SAP2000"

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

## BACHELOR OF ENGINEERING IN CIVIL ENGINEERING

#### Submitted by:

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Under the guidance of: Mrs. RADHIKA T N ASSISTANT PROFESSOR Dept. Of Civil Engineering SIET, TUMAKURU



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## DEPARTMENT OF CIVIL ENGINEERING

# CERTIFICATE

Certified that a project report on entitled "ANALYSIS AND DESIGN OF G+3 RESIDENTAIL BUILDING USING SAP2000" has been successfullycarried out by ANITHALAKSHMI, AMULY, DILEEP B.O

MANORANJAN T H, students of Shridevi Institute of Engineering and Technology, Tumakuru -572106, in partial fulfillment of project for the award of Bachelor of Engineering in Civil Engineering of the Visvesvaraya Technological University, Jnana Sangama, Belagavi -590018 during the academic year 2022-2023. 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.

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Signature of the Project Guide Mrs. RADHIKA T N ASSISTANT PROFESSOR Dept. of Civil Engineering SIET, Tumakuru

Signature of the H O D Dr. G Mahesh Kumar Professor and Head Dept. of Civil Engineering SIET, Tumakuru.

Signature of the Principal Dr. Narendra Viswanath Principal SIET, Tumakuru.

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PRINCIPAL SIET. TUMKUP

Name of the Examiners

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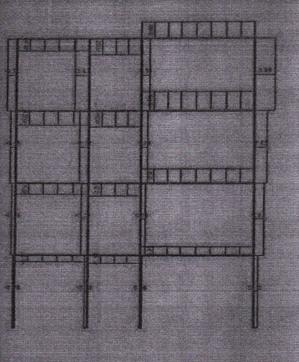
Signature with date

## ABSTRACT

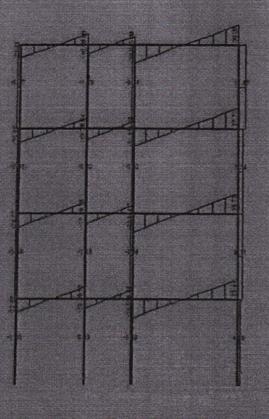
SAP2000 stands for STRUCTURAL ANALYSIS PROGRAMMING. SAP2000 is commonly used to analyze concrete structures, steel structures, parking garages, skyscrapers, low and high raise buildings, and portal frame design of multi-storey R.C.C residential building of '3' storey's. Modeling of 3- storey's R.C.C. framed building is done by using the SAP2000 software for analysis. Post analysis of the structure, maximum shear forces, bending moments, and maximum member displacement are computed. The structural elements are designed manually by using IS456 & SP16.

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Analysis and Design of Building using SAP 2000



### SFG for ground floor



SFD for first floor

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