**Trinity College of Engineering and Research, Pune**
**Department of Civil Engineering**
**BE Project List A.Y. 2022-23**

| Group No | Roll No | Name of Student | Guide Name | Title of Project |
|---|---|---|---|---|
| 1 | CE4015 | JAWALE ROHAN LAHU | N A AUTADE | Control dust on roadway using Calcium Chloride |
| | CE4029 | PAWAR YASHRAJ SUDHIR | | |
| | CE4033 | SAWANT VAIBHAV MOHAN | | |
| | CE4036 | SHINDE DHIRAJ LAXMAN | | |
| | CE4042 | WAGHMARE VISHAL UTTAM | | |
| 2 | CE4001 | AHER SIDHARTH SANJAY | R N JAGTAP | Analysis and Design of RCC twisted building using Etab software |
| | CE4003 | BAGUL NIKHIL JITENDRA | | |
| | CE4004 | BHUSARE VIDHI V | | |
| | CE4006 | CHAVHAN NIKHIL AKARAM | | |
| 3 | CE4002 | BABAR SANKET SUNIL | S V SHELAR | Experimental study on Earthquake resistingg structure with modern technique(Pendulum) |
| | CE4014 | JADHAV SHUBHAM UTTAM | | |
| | CE4024 | MULIK ATHARVA GANESH | | |
| | CE4025 | NATU ANIKET SAMBHAJI | | |
| 4 | CE4016 | KALE SUDHANSHU AJAY | S M KAZI | Experimental study of concrete by using Titanium dioxide in concrete to filter out smoke pollution from air |
| | CE4031 | RATHOD ABHIJIT RAJU | | |
| | CE4041 | VASANWALA ABDEALI BURHAN | | |
| | CE4043 | YADAV AAKASH RAMESH | | |
| | CE4044 | YELPURE HARSHAD SANTOSH | | |
| 5 | CE4008 | GADEWAR SATYAM SAINATH | S M KAZI | The implementation of supply chain management as a solution to problems of low labour productivity that are affecting the Indian construction sector in its epidemic state |
| | CE4009 | GAIKWAD MRUNAL SHRIMANT | | |
| | CE4011 | GAVALI VINAYAK SHANKAR | | |
| | CE4012 | GHADVE NIKHIL DILIP | | |
| | CE4026 | NIGADE PRAGATI GORAKH | | |
| 6 | CE4013 | HANDORE HRUSHIKESH SANJA | S M KAZI | Optimal design of water distribution network using WATERGEM software in Chambli village |
| | CE4018 | KARVE BHUSHAN SANTOSH | | |
| | CE4021 | KHATPE AVINASH PRABHAKAR | | |
| | CE4023 | MARGALE DEEPAK PANDURAN | | |
| | CE4038 | SWAMI MAHALING MALLINATI | | |
| 7 | CE4005 | BOOB DHEERAJ MAHESH | V V SHELAR | Evaluatio of compressive testing results using Bamboo plastic composite as aggregate in concrete block |
| | CE4022 | KOLHAPURE PARSHWA SACHIN | | |
| | CE4027 | PANCHARIYA SUMEET MANOJ | | |
| | CE4040 | TUPE PRATIK ANAND | | |
| 8 | CE4017 | KAMBLE RUSHIKESH RAJU | N A AUTADE | Design & analytical utilizing python and praphical user intrface of G+2 structure |
| | CE4019 | KENJALE ANKITA SANJAY | | |
| | CE4028 | PAWAR RAVIKANT ASHOK | | |
| | CE4032 | SARDAR SWAPNIL BHAURAO | | |
| | CE4039 | RAHUL SHIVSHANKAR TAMANAVARU | | |
| 9 | CE4034 | SHAIKH ALTAMASH GULAB | V V SHELAR | Utilization of marble dust in fired clay bricks |
| | CE4035 | SHAIKH JIYAJAIN MD SHARIF | | |

**Project Coordinator**

**Head of Department**

# TRINITY COLLEGE OF ENGINEERING AND RESEARCH

**Department of Civil Engineering**

# CERTIFICATE

**This is to certify that,** MR . RAVIKANT ASHOK PAWAR (72169996M), MS. ANKITA SANJAY KENJALE (71933336K), MR. RAHUL TAMANAVARU(71425445C), MR . SWAPNIL BHAURAO SARDAR (71624497H)MR . RUSHIKESH RAJU KAMBLE (72169999F) **has satisfactorily completed the Seminar work entitled;** "Design and Analytical Utilizing Python and a Graphical user interface of G+2 Structure" this work is being submitted in the partial fulfillment of prescribed syllabus of BE (Civil Engineering), Savitribai Phule Pune University, Pune for the academic year 2022-2023.

**Prof . Mrs. Nilima Autade**
**PROJECT Guide**

**Prof. V.S. Shingade**
**Head, Civil Engg. Dept.**

**DR. A. B. AUTI**
**PRINCIPAL**

**EXTERNAL EXAMINER**

# ABTRACT

Analysis and design of buildings for static forces is a routine affair these days because of availability of affordable computers and specialized programs which can be used for the analysis. On the other hand, dynamic analysis is a time consuming process and requires additional input related to mass of the structure, and an understanding of structural dynamics for interpretation of analytical results. Reinforced Concrete (RC) frame buildings are most common type of constructions in urban India, which are subjected to several types of forces during their lifetime, such as static forces due to dead and live loads and dynamic forces due to earthquake. Here the present study describes the effect of earthquake load which is one of the most important dynamic loads along with its consideration during the analysis of the structure. In the present study a multi-storied framed structure of (G+2) pattern is selected. Linear seismic analysis is done for the building by static method (Seismic Coefficient Method) and dynamic method (Response Spectrum Method) using Python software as per the IS-1893-2016-Part-1. A comparison is done between the static and dynamic analysis, the results such as Bending moment, Nodal Displacements, Mode shapes are observed, compared and summarized for Beams, Columns and Structure as a whole during both the analysis.

# TRINITY COLLEGE OF ENGINEERING AND RESEARCH

## Department of Civil Engineering

# CERTIFICATE

This is to certify that. the following students have satisfactorily completed the Project work entitled: *"DESIGN OF WATER DISTRIBUTION SYSTEM USING WATER GEMS SOFTWARE IN CHAMBLI VILLAGE"* this work is being submitted in the partial fulfillment of prescribed syllabus of Final Year of BE (Civil-Engineering), Savitribai Phule Pune University, Pune for the academic year 2022-2023.

| Name of the Students | Examination Seat No. |
|---|---|
| MR.BHUSHAN SANTOSH KARVE | (B190650015) |
| MR.HRUSHIKESH SANJAY BANDORE | (B190650011) |
| MR.DEEPAK PANDURANG MARGALE | (B190650019) |
| MR.AVINASH PRABHAKAR KHATPE | (B190650017) |
| MR.SWAMI MAHALING MALLINATH | (B190650034) |

PROF. S.M. KAZI
PROJECT GUIDE

PROF. V.S. SHINGADE
HOD, CIVIL DEPT.

DR. A.J. PATIL
PRINCIPAL

EXTERNAL EXAMINER

# ABSTRACT

In Present Study of Chambli village was done and Water distribution system Network was designed, which is located in pune district, state Maharashtra, India. For the design of Chambli water distribution network study of present population, population forecast, for three decades, water demand, and flow and also survey of village Chambli was done with the help of auto level. From the level survey, map was created and also the elevation and length of pipe line required for the village was calculated. The node no. and pipe number was denoted on map. Water distribution Network for the village was designed using Watergems software and compared with previous results.