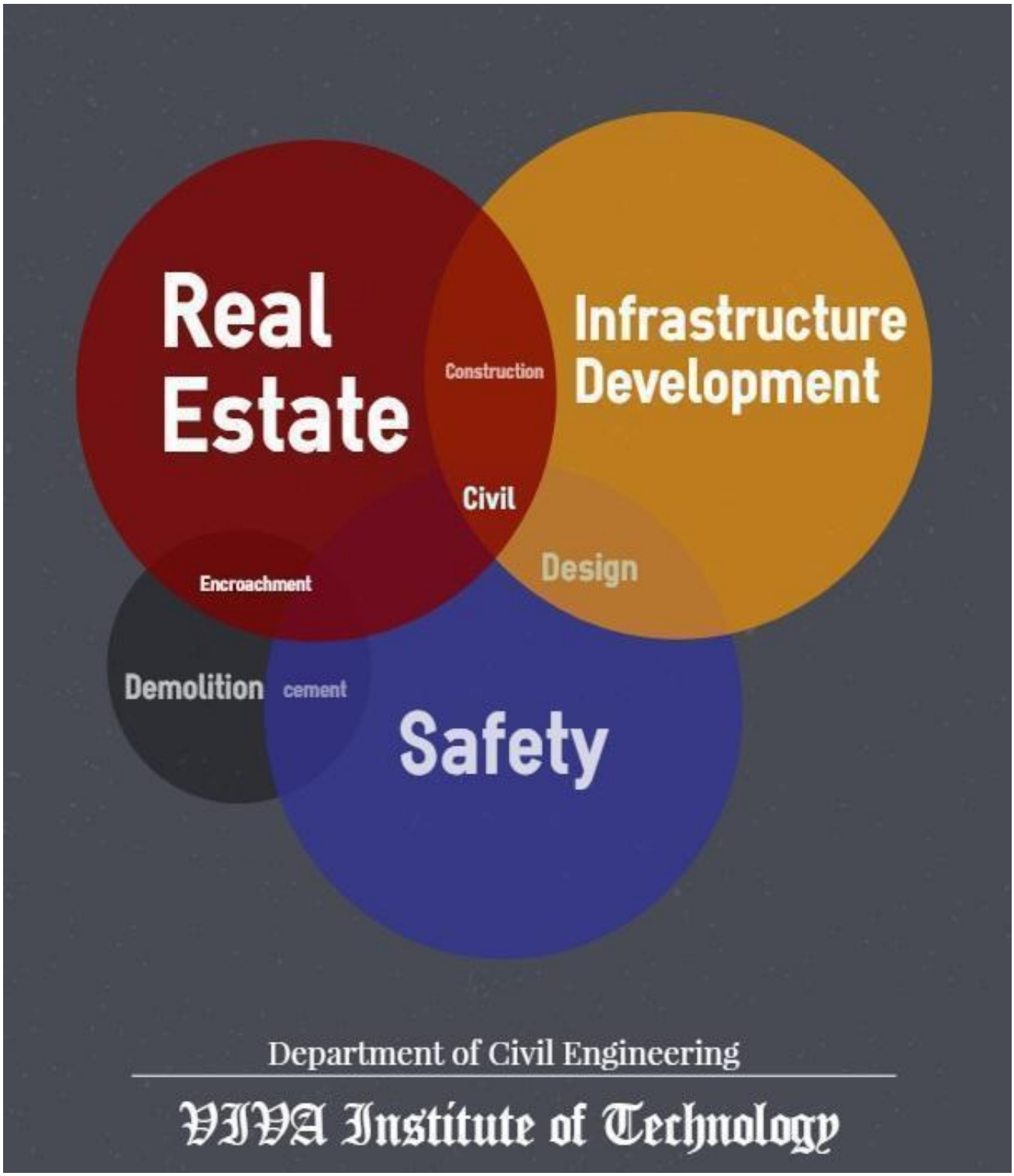
DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Newsletter 2023-24



Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

VISION

- To carve and contribute to the society and the world at large, a group of civil engineers with excellent & high technical competency, who can give the best solutions to the current & future challenges in civil engineering.
- To provide an environment that promotes personal growth, self-confidence, urge for high esteem coupled with high moral and ethical values.

MISSION

- To provide students with upgraded technical knowledge through innovative teaching & learning processes.
- To provide interactive sessions with experienced technical experts.
- To associate students with the construction industry by way of taking up live projects with industry and expose them to the current scenario.
- To motivate them for research and development activities

PROGRAMME OUTCOMES

Engineering Graduates will be able to:

- PO1: Engineering Knowledge: apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- PO2: Problem Analysis: identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: Design & Development of Solutions: design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4: Conduct Investigation of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

- PO5: Modern Tools Usage: create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6: The Engineer and Society: apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment & Sustainability: understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics: apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
- PO9: Individual & Team work: function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management & Finance: demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long Learning: recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES

- Students will be able to carry out planning, design, preparation of all sets of drawing of various small civil engineering projects and manage the construction activities with skill, adhering to the principles learnt during the programme.
- Students will be confident to undertake various projects as entrepreneurs.

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

- Students will be able to inovate research projects as per the needs of the society

ABOUT THE DEPARTMENT

Department of Civil Engineering had its humble beginning in 2011.Now We have got Ten full-fledged laboratories, a dedicated team of 17 faculty members along with four supporting staff and their untiring efforts to our credit. Our motto is to carve and contribute to the society and the nation, a group of competent civil engineers with sound ethical values.

The department takes initiative in giving the students practical knowledge, exposing them to the industry by conducting site visits, industrial visits, arranging internships etc. Eight of our faculty members are ME degree holders and all others are ME pursuing. They presented papers in various conferences at national and international level and published papers in national and international journals.

They are associated with professional bodies like ISTE, AMIE, IGS etc. Many of our students scored well in exams like GRE, TOEFL and secured admission for post graduate programmes in universities abroad. Many of them secured admission for ME through GATE. Students participate in Tech Fest, sports and cultural festival competitions at inter collegiate level and won the awards. Civil engineering student's association (CESA)is in function coordinating various activities of the department.

Our young and dynamic team of faculty members guide the students to make wonderful BE project work, technical working models of Civil Engineering Structures. Our faculty members give expert lectures to other institutes in topics of their interest and specialization. We also invite eminent people from the industry and other institutes in order to promote department - industry - professional relationships conducting special lectures on current developments.
One week ISTE sponsored STTP is conducted at department level and college level every year for faculty development for faculties in and outside the department.

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

LIST OF LABORATORIES

Sr No.	Laboratory Name	Location
1	BMC LAB	WORKSHOP Gr. Floor
2	ENG. GEOLOGY LAB	CIVIL-MECH BUILDING 5TH FLOOR
3	SOM LAB	MAIN BUILDING A – 009 Gr. Floor
4	SURVEY LAB	MAIN BUILDING Gr. Floor A-002
5	CT LAB	WORKSHOP Gr. Floor
6	TRANSPORTATION LAB	MAIN BUILDING Gr. Floor A-003
7	ENVIRONMENTAL LAB	MAIN BUILDING Gr. Floor A-001
8	GEOTECH LAB	WORKSHOP Gr. Floor & MAIN BUILDING
9	APPLIED HYDRAULICS	WORKSHOP Gr. Floor
10	Project Lab	L – 306

FROM PRINCIPAL'S DESK:

Dear All,

It gives me an immense pleasure to welcome you to VIVA Institute of Technology, Virar affiliated to University of Mumbai, governed by Late Shri. Vishnu Waman Thakur Charitable Trust's. We believe in the fact that "Education is a journey from Information to Knowledge and from Knowledge to Wisdom. The Engineering graduate should be capable to apply knowledge to real time engineering problems and provide solutions, which are technically sound as well as economically viable. Only creative minds can accomplish this task.

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

A Newsletter mirrors the success story of an institution and acts as a great medium to reach out to the outer world. It reflects upon the persistent and committed efforts made by faculty, and students for taking the institution one-step ahead. Continuing the same tradition, this issue of

newsletter reflects upon commendable contributions made by all members of the civil engineering department in their fields of expertise as well as for the overall growth of the institute. I congratulate everyone for their value adding work for the institution and do expect the same in times to come. I also congratulate the editorial team for bringing out the present issue of the newsletter.

VIVA INSTITUTE OF TECHNOLOGY nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and nation at large. It has an aesthetically designed and elegantly built campus furnished with state of art equipment and facilities. Here, education is not only focusing on 4 years B.E. degree course but also creating for the students a platform to realize their dreams, hone their cognition, sharpen their competence and carve out a wholesome personality.

Wishing you all the best for the fruitful learning journey at VIVA Institute of Technology and for a bright future!

FROM H.O.D.'S DESK:

We as a department are happy to bring out this bulletin for this term during which the humble efforts of four of our faculty members are recognized in completing M.E. Other faculty members with B E secured admission for ME and are pursuing success. Civil engineering department has a long way to go in the pursuit of excellence, but their dedication and diligent efforts in training the students is a clear indication of our growth and quality. This will surely take our students to commendable heights in the field of higher education and entrepreneurship. We believe in excellence with ethics and are very particular in striving towards the same. We begin to realize the fact that any sort of technical lacuna today is like a credit card "enjoy today and pay later.

Many of our students are from lower middle class families who have a lot of hidden potential in them but really struggle to come to good positions to support their families. Some of our students showed many commendable beginning which are useful to the Public by writing and publishing a technical book and inventing economical construction material which even fetch them patent.

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Our frequent field visits, yearly surveying project, drawing project and frequent guest lectures by eminent speakers are remarkable memories for them. They are given opportunities inside the classrooms to express their talents in the language and style of their heart. I am sure that we can make commendable contributions to society which will lift the name of our college high in the near future.

FACULTY DETAILS:

Sr. No.	Name of the Faculty	Experience in Years
1	Lissy Jose	23
2	Akshay Mistry	13
3	Ramya Raju	11
4	Monica More	11
8	Ashish Shetty	9
6	Jimit Chotai	10
7	Pratibha Patil	10
8	Asmita Mhatre	9
10	Yadnesh Patil	9
11	Purva Awari	9
12	Mayur Patel	8
13	Prashant Gondane	8
14	Arathy Menon	13

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

FACULTY DEVELOPMENT INITIATIVES

Department Library

The department strives to provide with the best possible opportunity for the staff and the students to enhance their knowledge, and the departmental library is one initiative taken by the department in this regard.

The departmental library is managed by a staff in-charge. The library gives easy access to the books and research projects for both the faculty and students. Currently the departmental library has over 300 books.

Appraisal System

An effective performance appraisal system is a vital instrument for gauging and improving the performance and contribution of the faculty. The institute has a well-defined appraisal and well formatted appraisal system and it is effectively implemented in the department. Every teaching faculty submits self-appraisal forms to the head of the department. The head of the department evaluates the self-appraisal form filled by the faculty and comments on the performance of the faculty. This form is then sent to the principal.

In the presence of the head of department, the principal conducts a one to one meeting with all the teachers and gives feedback/suggestions/comments on the performance. The performance appraisal is carried out in each semester. In every academic year awareness is also created among the faculty about the importance of performance appraisal, in the department.

Feedback System

According to the schedule mentioned in the academic calendar, the HOD of the department takes offline feedback from students. Students are provided with a copy of feedback form which assesses the staff on the basis of parameters. Parameters used to assess the faculties are Way of teaching, Extent of understanding the subject & satisfaction, Ability to clear the doubts, Attitude towards the students, Punctuality, Interaction during lecture, Motivation.

Students also give comments about faculties in a written form. Ratings are calculated on the basis of score and comments given by the students. Depending on the comments and ratings by the students, HOD communicates and guides the staff regarding further improvements through corrective actions. Second

meeting with the students is conducted in the same semester to assess the effectiveness of the corrective action undertaken

SHORT TERM TRAINING PROGRAMME (STTP):

STTP Report on "Sustainability Training In Green Building."

One-week short term training program on "Sustainability Training In Green Building" under ISTE was organised by the Civil Engineering Department, VIVA Institute of Technology during 24th June 2024 to 28th June 2024.There were 11 participants in the STTP. The participants were from Civil Engineering Discipline.

The STTP was inaugurated on 24th June 2024, Monday at 10.00 am by HOD Civil Engineering, Prof.Aksahy Mistry in the presence of Guest speaker, Mr. Abdul Chaudhary.

Day 1 Session 1:10.30 am to 12.30 pm

Session 2: 2pm to 4pm

Day 2 Session 3: 10 am to12pm

Session 4: 2pm to 4pm

Session 1, 2, 3&4: Mr Abdul Chaudhary.

EDEG Simulation Theory and Demonstration of Software

The session was on EDEG Software Demonstration. EDGE stands for Excellence in Design for Greater Efficiencies, and the certification has the goal of reducing the environmental impact of buildings in three areas: direct energy consumption, water consumption, and the energy footprint of construction materials. It's generally used by architects, structural engineers, mechanical, electrical, and plumbing (MEP) engineers, designers, and contractors. In the 1st session, the speaker gave the demo of EDGE software, In 2nd session we have discussion on different types of green building certification and their comparison. Study of EDGE methodology and its resources.

In the second day (25th June), for the Session 3 speaker gave us detailed demonstration of one live project, site visit was conducted and all the participants were told to report site (Capital mall Nallasopara) and collect all the data to feed in EDGE software. Group of two people created for collection of data and they have to create a building model by feeding the collected data.

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Day 2- Faculty site visit to capital mall

Day 3 Session 5:11 am to 1 pm

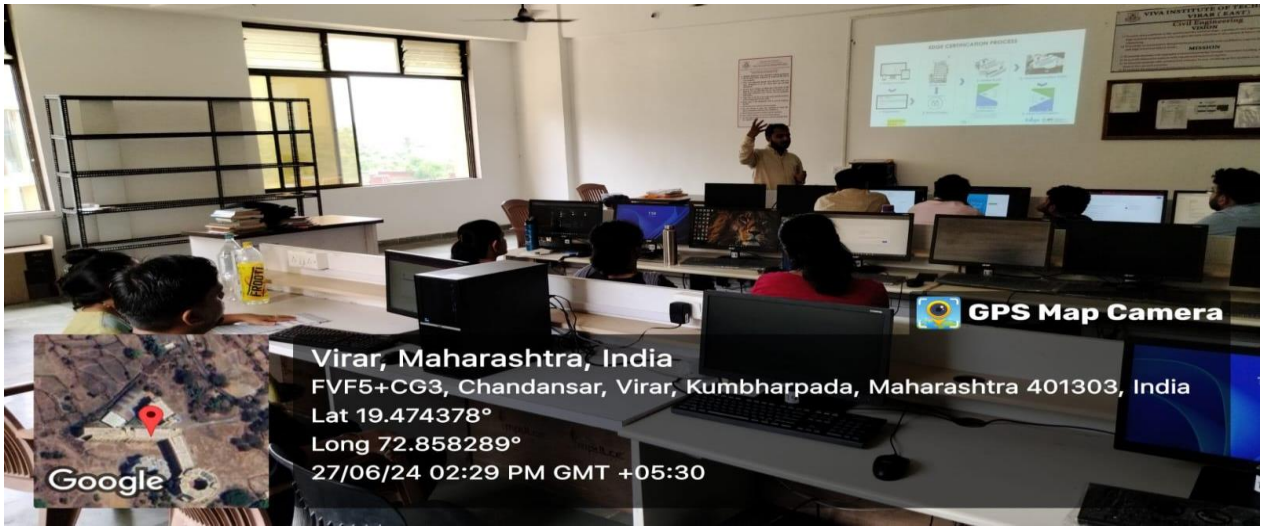
Session 6: 2pm to 4pm

Session 5&6: Mr. Farthan Rathod.

EDGE Model Creation

The 5th session was on detailed demonstration of live project. on the 3rd day individual assignment were given to each group for creating model by feeding data collected from actual site and analyse the output results like energy, water, and building material savings. Faculties analyse the model and on report for green building certification and generated a report. For generation a report we have brief discussion on how to use different EDGE software tool which source to be use for water analysis, energy analysis. Also in 5th session speaker explain us how to select limits for building material usage.

In the 6th session on the third day of STTP, speaker explain regarding different report analysis values, the generated values for water, energy and building material analysis are permissible for green building certification or not. What are expertise suggestion for different certification value. What exact permissible limit required for different certification like LEED Certification OR EDGE Certification. Faculties also get detailed review about how this water, energy and building material value changes according to place, climate and orientation of structure.



3rd Day of STTP on EDGE Model Creation

Day 4 Session 7:10.30 am to 12.30 pm

Session 8: 2pm to 4pm

Day 5 Session 9: 10 am to12pm

Session 10: 1pm to 2pm

Session 7,8: Ms. Gargi Priyamvada.

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Session 9,10: Ms. Priti Reddy

How to become EDGE expert

The 7th session was on EDGE expert training. In this session the speaker explain us why it is necessary to become EDGE expert he said it Increase your understanding of which energy and water-saving systems and solutions are best for a particular location and climate, and how to measure the collective impact of design decisions in the aggregate. Gain deeper knowledge of the EDGE software and certification process.

Learn about bioclimatic design.

Cross-sell your services.

Win new clients.

Promote your work.

Help to accelerate change.

To become an EDGE Expert, you must successfully complete EDGE training and the EDGE Exam. EDGE training is offered by an official provider / Licensed EDGE Faculties either online or in a classroom environment. Once you have completed training, IFC will email an EDGE Exam ID number to you. The EDGE Exam is available in English, Bahasa, Spanish, French, Chinese, Portuguese, and Vietnamese, costs $100 and can be taken at a Parametric test center or in the comfort of your home or workplace

The 5th day, 9th session we get to know what skills are required to become EDGE expert. During the training, you will learn how to quantify the value of passive and active design elements, how to determine which energy and water-saving systems and solutions are best for a particular location and climate, and how to measure the collective impact of design decisions in the aggregate. In addition to gaining a deeper understanding of the EDGE software, you will also discover the EDGE standard and certification process

In the 10th session the speaker explained about what exactly EDGE expert do. EDGE Expert influences a client's decision to design and build green, working closely with or within the design team. By using the EDGE software, an EDGE Expert provides a cost-benefit analysis of green concepts, systems and solutions that best match the client's aspirations. For clients wishing to certify their projects, an EDGE Expert instils confidence that a project meets the EDGE standard.

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

4rd Day of STTP

5rd Day of STTP on EDGE expert certification

The One-Week Short Trem Training Program on "Sustainability Training In Green Building"

(Faculties of civil engineering department during their visit at Capital mall as a part of STTP)

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

SITE VISIT: 01

Venue: D.S. Eterprises, G/136, Santacruz (w) , Dist: Mumbai
Date: 21/03/ 2023, THURSDAY at 10:00 am.
Class: TE
Faculty co-ordinator: Prof. Jimit Chotai
Number of Students: 58
No. of Teachers:02
Mode of Transportation: Self
Visit Organized by: Department of Civil Engineering, Viva Institute Of Technology,Virar.

INTRODUCTION

The Department of Civil Engineering of Viva Institute Of Technology, Virar organized one day visit to DS enterprises Prem sagar G/136 , Santacruz on 21nd March 2024 for the third year students of Civil Engineering(BE) program.
The Visit was mandatory to fulfil the curriculum requirement of Mumbai University (MU) for TE Civil students under the subject of Construction Equipments and Techniques.
The visit was organized with the prior permission and guidance of Respected Principal Prof. Dr. Arun Kumar and HOD of Civil Department Prof. Akshay Mistry. Along with the staff members, students of BE. Prof. Jimit Chotai have taken hard efforts and initiative for the visit and guided them throughout the visit.

EQUIPMENTS AT THE SITE :-

TOWER CRANE:-

A crane is a machine used to move materials both vertically and horizontally, utilizing a system of a boom, hoist, wire ropes or chains, and sheaves for lifting and relocating heavy objects within the swing of its boom. The device uses one or more simple machines, such as the lever and pulley, to create mechanical advantage to do its work. Cranes are commonly employed in transportation for the loading and unloading of freight, in construction for the movement of materials, and in manufacturing for the assembling of heavy equipment.

MIVAN FORMWORK: -

Mivan shuttering technology is a construction technique which is fast-paced, is more strong and durable as aluminium formworks are used in the building.
Mivan shuttering is a fast-paced construction technique which offers strength and durability to a building by use of aluminium formworks. It is much quicker than the traditional beam, column, and brick construction. This technology does not use column and beam but involves walls and slabs cast in easy to handle, light weight, pre-engineered aluminium forms.

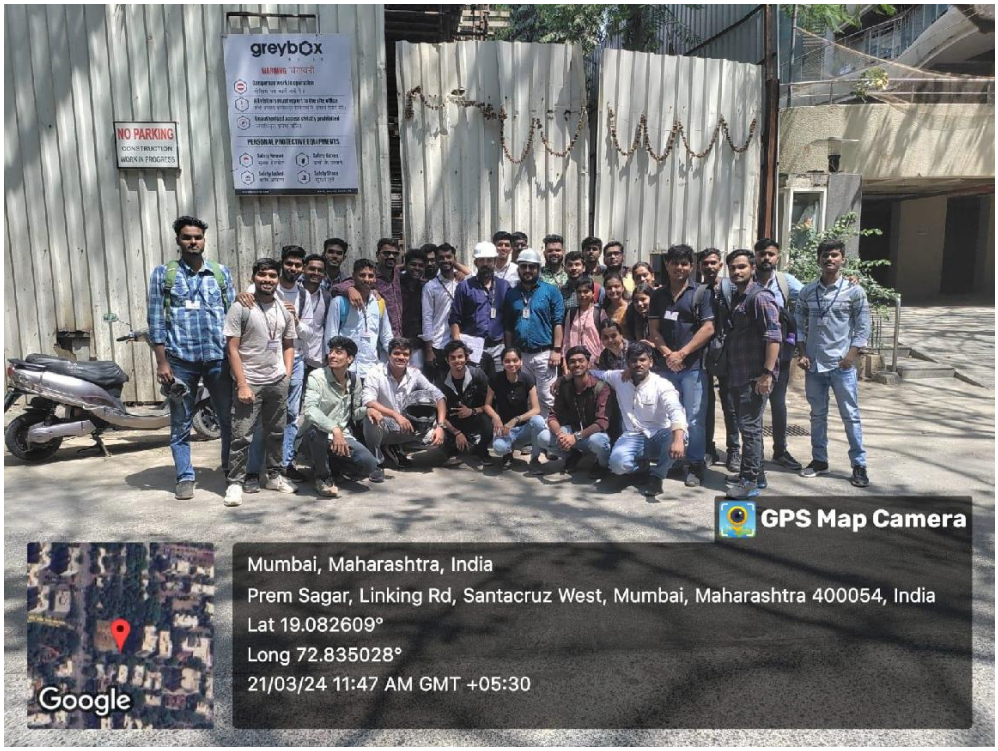
POST TENSIONED (PT) CABLE:-

Post Tensioned (PT) cables are used in concrete construction to add strength to thin and long slabs. This

allows more span lengths between support columns. The cables have steel wires within plastic sheath. They are tensioned after pouring concrete,hence the name post-tension cables. Post-tension 'tendon' is a term used to define the complete assembly comprising of the sheath, pre-stressing strand, anchorages, corrosion-inhibiting coating or any grout around the steel wire or bar.

CONCLUSION

From this site visit, we understand more about the construction. We managed to understand the basic process and practical aspects of construction equipments and techniques on site. We can gain more knowledge about the working of Tower Crane. Also we had understand the basic practical application and components of Mivan Formwork technology. We also learned about the construction with PT cable, why we use and its advantages on the slab at the site visit.



Students of TE during their visit at DS Enterprises,Santacruz

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

SITE VISIT: 02

Facuty Coordinator: Prof.Purva Awari

Number of Students: 58

Number of faculties:**02**

Mode of Transportation: Self

Visit Organized by: Department of Civil Engineering, Viva Institute Of Technology,Virar.

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Department of Civil Engineering of Viva Institute Of Technology, Virar organized one day visit to SewageTreatment Plant- Bolinj, Virar on 22nd March 2024 for the third year students of Civil Engineering(BE) program.

The Visit was mandatory to fulfil the curriculum requirement of Mumbai University (MU) for TE Civil students under the subject of Environmental Engineering. The visit was organized with the prior permission and guidance of Respected Principal Prof. Dr. Arun Kumar and HOD of Civil Department Prof. Akshay Mistry. Along with the staff members, students of BE. Prof. Purva Awari have taken hard efforts and initiative for the visit and guided them throughout the visit.

Objectives:

1. To provide students with the practical knowledge of the various unit operations and unit Processes involved in treatment of sewage thereby leading to better understanding of the subject.
2. To learn about handling of sewage storage, capacity and processes.
3. To witness actual methods adopted by the plant at real time.
4. Our main purpose for this visit was to give the practical knowledge about water treatment plant process. By this visit students can be familiar with industrial environment and get knowledge of different units of waste water treatment plant.
5. Also in 6th semester subject like Environmental Engineering requires knowledge about how components of sewage plant are constructed, so it is very much convenient to see all the practical and components in real time work environment.

Sewage Treatment Plant :

It is a type of waste water treatment which aims to remove contaminants from sewage to produce an effluent that is suitable to discharge to the surrounding environment or an intended reuse application, thereby preventing water pollution from rawsewage discharges. Sewage contains waste water from households and businesses and possibly pre-treated industrial waste water.

Treated sewage water is purified and maintained as per the Maharashtra pollution control board norms(MPCB).

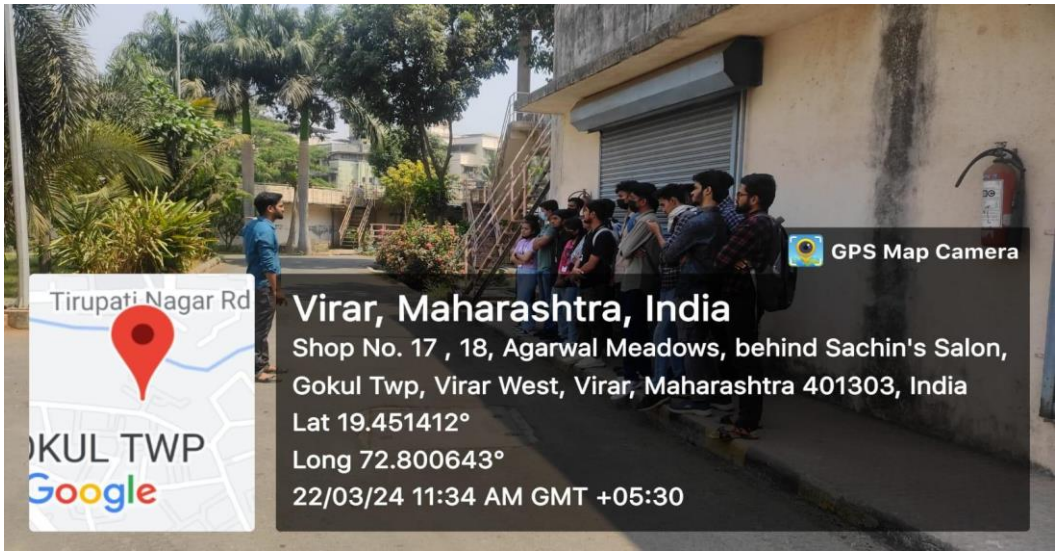
Principles of STP:

The basic principle of a biological treatment plant is decomposition of the raw sewage.

Sewage treatment is the process of removing contaminants from municipal waste water, containing mainly household sewage plus some industrial waste water. Physical, chemical, and biological processes are used to remove contaminants and produce treated waste water that is safe

enough for release into the environment. A by-product of sewage treatment is a semi-solid wasteor slurry, called sewage sludge. The sludge hasto undergo further treatment before being suitable for disposal or application to land. Sewage treatment generally involves three stages,called primary, secondary and tertiary treatment.

- Primary Treatment consists of temporarily holding the sewage in a quiescent basin where heavy solids can settle to the bottom while oil, grease and lighter solids float to thesurface. The settled and floating materials are removed and the remaining liquid may bed is charged or subjected to secondary treatment. Some sewage treatment plants that are connected to a combined sewer system have a bypass arrangement after the primary treatment unit. This means that during very heavy rainfall events, the secondary and tertiary treatment systems can be bypassed to protect them from hydraulic over loading and the mixture of sewage and storm water only receives primary treatment.
- Secondary Treatment removes dissolved and suspended biological matter. Secondary treatment is typically performed by indigenous, water-borne micro- organisms in a managed habitat. Secondary treatment may require a separation process to remove the micro-organisms from the treated water priorto discharge or tertiary treatment.
- Tertiary Treatment is sometimes defined as anything more than primary and secondary treatment in order to allow ejection into a highly sensitive or fragile ecosystem (estuaries,low-flow Rivers, coral reefs...). Treated water is sometimes disinfected chemically or physically (for example, by lagoons and microfiltration) prior to discharge into a stream, river, bay, lagoonor wetland, or it can be used for the irrigation of a golf course, greenway or park. If it is sufficiently clean, it can also be used for ground water recharge or agricultural purposes.



Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

SITE VISIT: 03

Venue: EVA Coop hsg society, Plot no G152 , Opp Pernia Pop-up , Juhu Tara Road , Santacruz West

Date: 08/04/ 2024, MONDAY at 10:30 am.
Class: TE

Faculty co-ordinator: Prof.Arathy Menon

Number of Students: 58
No. of Teachers:02

Mode of Transportation: Self
Travelling Distance: 62 km from college (OneSide)

Visit Organized by: Department of Civil Engineering, Viva Institute Of Technology,Virar.

INTRODUCTION

- The Department of Civil Engineering of Viva Institute Of Technology, Virar organized one day visit on construction site where pilling work was in process on April 08/2024 for the third year students of Civil Engineering(BE) program.

- The Visit was mandatory to fulfil the curriculum requirement of Mumbai University (MU) for TE Civil students under the subject of Geotechnical Engineering-ll. The visit was organized with the prior permission and guidance of Respected Principal Prof. Dr. Arun Kumar and HOD of Civil Department Prof. Akshay Mistry. Along with the staff members, students of BE. Prof. Arathy Menon have taken hard efforts and initiative for the visit and guided them throughout the visit.

- Objectives of the Site Visit:

- 1. Inspection of the piling equipment and materials to ensure they meet safety and quality standards.

- 2. Assessment of the piling method being used and its effectiveness for the specific project requirements.

- 3. Verification of compliance with environmental regulations, such as noise levels and waste management.

- 4. Evaluation of site conditions and potential challenges that may affect the piling process.

- 5. Monitoring of progress and adherence to the project schedule.

About pilling process :

- Piling, in construction, refers to the process of driving long, slender columns (known as piles) into the ground to provide structural support for buildings, bridges, or other structures. These piles are typically made of materials like concrete, steel, or wood and are driven deep into the ground until they reach a stable layer of soil or rock. Piling is crucial in areas where the soil may not be able to support the weight of the structure adequately, such as in areas with soft or loose soil, or in seismic zones where stability is essential.

(Students of TE at site visit to piling work at Santacruz

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

SITE VISIT: 04

Topic Name: Site visit to Elephanta caves
Div: A
Date: 16 February 2024
Time: 9:30 am

Introduction:
The Elephanta Caves in Mumbai Harbor, Maharashtra, India, are UNESCO World Heritage Sites known for their ancient rock-cut temples and sculptures dating back to the 5th-8th centuries AD.
Purpose:
Our visit aimed to explore the architectural, sculptural, and historical significance of the Elephanta Caves and assess preservation efforts.

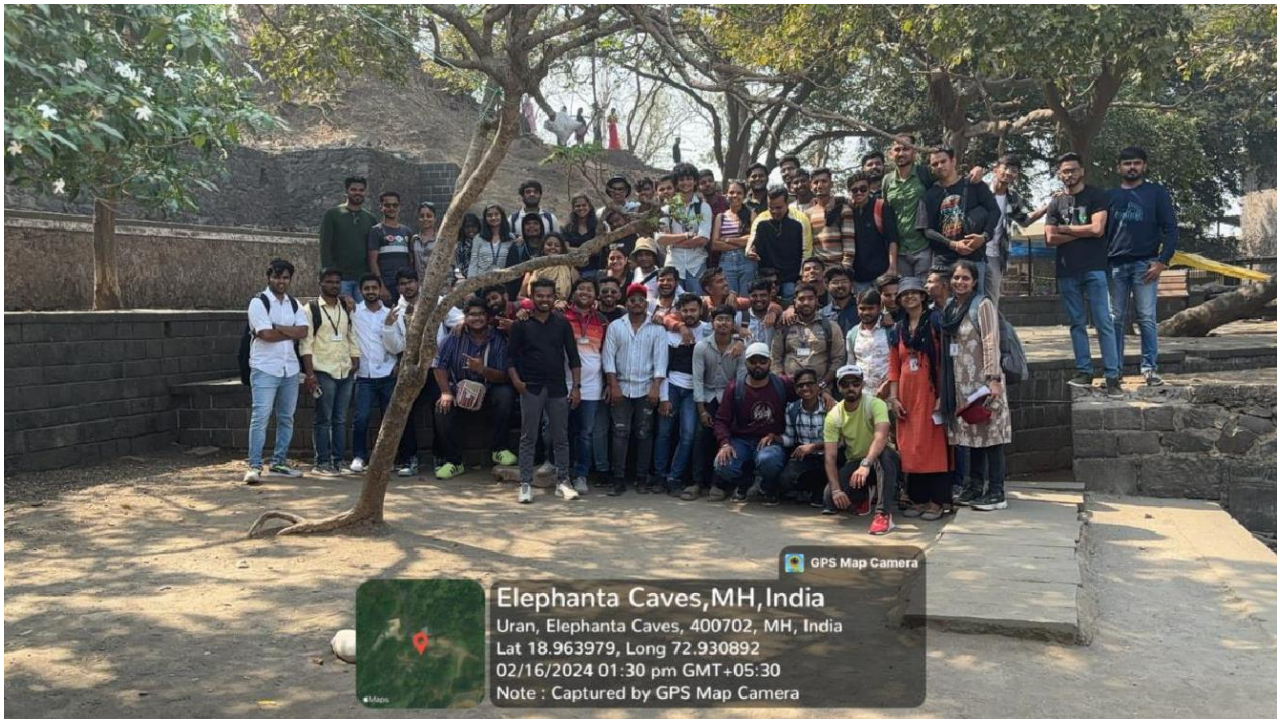
Findings:
1.Architectural Marvel:
Remarkable rock-cut architecture showcasing ancient Indian skill and precision.
Main cave dedicated to Lord Shiva with intricately carved pillars and halls.
Layout suggests deep religious symbolism.
2.Sculptural Splendor:
Houses sculptures of Hindu deities, each exhibiting exquisite craftsmanship.
Iconic three-headed sculpture of Lord Shiva symbolizes divine aspects.
3.Historical Significance:
Served as a prominent religious and cultural center attracting pilgrims.
Inscriptions provide insights into medieval Indian socio-religious practices.
Preservation Efforts:
Facing challenges like weathering and human-induced damage.
Ongoing initiatives focus on structural stabilization and restoration.

Conclusion:
The Elephanta Caves offer a glimpse into India's rich heritage, showcasing ancient craftsmanship and religious practices. Continuous conservation efforts are crucial for preserving this invaluable site.
Recommendations:

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

1.Implement robust conservation measures.
2.Enhance educational programs to raise awareness.
3.Foster collaborations for sustainable management.

Acknowledgments:
We extend gratitude to authorities for their assistance during our visit.



Site visit for BE Students at Elephanta caves as Heritage structure

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Workshop:1

Topic of the Workshop: ACADEMIC RESEARCH METHODOLOGY

Speaker: Dr. Devshree D Ugvekar

Date: 31/07/23, 03/08/23 & 04/08/23

A Hands-on workshop was conducted for the Students of BE & TE for the purpose of getting more knowledge about the Research Methodology. Two days workshop were arranged in the Project lab and the Guest speaker explained the Methodology and the purpose the workshop.

Research is an identifying gap or problems and words to words systematiic and scientific way to achieve definite solution to problems. The research cycle is defined problem, literature search, frame objective, data collection and analysis and finding solution. The effective resource was clearly written and designed in a way that makes them easy to understand and use and we use scholar goggle for finding right information. Plagiarism means using someone else's work without giving them proper credit. In academic writing, plagiarizing involves using words, ideas, or information from a source without citing it correctly. A research paper is usually more detailed and thorough than a review paper.

A research paper is usually peer-reviewed, but a review paper is not always. In general, a research paper is more formal than a review paper. A research paper's tone is normally objective, but a review paper's tone can be more subjective. ARM USES: Research methodology is the specific procedure or techniques used to identify, select, process, and analysis information about topic. In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability. Google scholar allows for you to see articles related to the one that might interest you, how many times an articles has been cited and by whom, and provides citation for articles in a number of styles.

The workshop was successful and the students enjoyed the hands-on workshop for the training on research work. Students prepared their own documents and presented infront of the speaker.

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING

NEWSLETTER 2023-24

(Dr. Devshree D Ugvekar during a workshop for our BE ,TE students on Research Methodology)

Workshop :2

Topic name: Skill Based Lab Course II - Total Station workshop

Name of the Guest speaker: Mr. Pratik Raut

Designation: Land Surveyor Point Scale Survey & CO.

Organization/ Institution: Point Scale Survey & CO.

Date: 20/03/2024

Time: 10:00 onwards

The set up was for second year students as a piece of delicate expertise study. The speaker zeroed in on concerning the down to earth field work of Total Station at project locales. Additionally he made sense of the significance of Complete Station, its benefits, inconveniences, working of all out station. He gave the functional information about transitory setting of absolute station, assortment of definite highlights utilizing station. Information was gathered through total station on a helpful PC supported programming. Furthermore, sir likewise showed setting out establishment plan utilizing complete station.

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

After the talk, students had a chance to ask their inquiry and the speaker was adequately caring to give every one of the arrangements. To close, the study address by Mr. Pratik Raut was exceptionally enlightening. It will assist understudy with working complete station and create its result in terms of plans, heights and 3D view.

(Students of SE attending workshop on total station)

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Guest Lecture:01

Guest Lecture for Subject Transportation Engineering

Topic: Pavement Evaluation & Maintenance

Speaker: Mr. Vivek Bhalchandra Mamdapur

Date: 06th October 2023 (Friday)

Venue: Fourth Floor Seminar Hall (Main Building)

Participants: Third Year Engineering Students & Faculty

Introduction:

As a part of the curriculum, a Guest Lecture was conducted by the Department Of Civil Engineering at Viva Institute Of Technology, Virar (East) on 06th October 2023 (Friday) from 11.00 a.m. to 1.00 p.m. Chief Guest "Mr. Vivek Bhalchandra Mamdapur", Estate Advisor at the National Institute Of Industrial Engineering, Powai, had taken a guest lecture on the topic "Pavement Evaluation & Maintenance" for third-year engineering students at the 4th-floor seminar hall in the main building. The speaker had 40-plus years of work experience. In those 40-plus years, the speaker has provided his service in various organizations as an engineer and institutes as an engineering professor. The speaker has also delivered lectures at various other universities. A total of around 50 students and staff participated in this program.

Summary:

The speaker explained the basics of pavement evaluation, structural and functional evaluation, and discussed in detail Benkelman Beam, FWD, and LWD methods. The speaker also detailed various failures that occur in both rigid and flexible pavements. The speaker also detailed how to strengthen the existing pavement. The speaker discussed the possibilities and reach abilities of research and development in the CE field, and opportunities in core technical areas with authenticated explanations. Some part of his session was also directed towards ethical practices that an engineer should follow in this field as the life of people depends on the kind of work executed.

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

In the end, the speaker also discussed his recent works and motivated young engineers to work hard. After his lecture, the students were given time to interact with him. Students felt that the session was more informative and interactive. At the end of the guest lecture, some students gave feedback and explained how they benefited from it. Overall, it was a very wonderful experience for everyone.

(Mr.Vivek Mamdapur Engaging our T.E students in a guest lecture on Pavement Evaluation & Maintenance)

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Guest Lecture:02

Date : 23 October 2023**.**

Time : 11:00 am – 01:00 pm

Venue : Seminar Hall, Viva Institute of Technology**.**

Guest Lecturer : Mr. Abhijit Wasave

Organizer : Prof. Prashant Gondane

Participants BE CIVIL (A&B)

Summary of the Lecture:

1. Introduction :

A guest lecture on "Tenders and Contracts" was held on 23 October,2023 at Seminar Hall, Viva Institute of Technology. This Informative session was organized by Prof. Prashant Gondane and featured an expert in the field, Mr. Abhijit Wasave , who shared valuable insights into the intricacies of tenders and contracts. Tenders and contracts are pivotal elements of modern business, and the lecture aimed to elucidate the concepts and best practices associated with them.

2. Key Points Discussed :-

2.1 Understanding Tenders :

The lecture began with an in-depth exploration of tenders, a crucial aspect of business operations. Key points highlighted during this section included:

1. Definition of Tenders : Tenders are formal offers submitted by suppliers or service providers in response to solicitations from prospective clients, which may be government entities, private companies, or organizations. These offers lay out the terms, conditions, and pricing for delivering goods or services.

2. Types of Tenders : Mr. Abhijit Wasave, discussed the various categories of tenders, such as open tenders, selective tenders, and negotiated tenders. The lecture emphasized the advantages and disadvantages of each type and explained their common use cases.

3. Tendering Process :The lecturer provided a step-by-step overview of the tendering process, encompassing everything from the issuance of tender requests to the bid evaluation and the awarding of contracts.

2.2 The Significance of Contracts :

Transitioning to the topic of contracts, the guest lecturer explained the critical role they play in business transactions:

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

1. Definition of Contracts : A contract is a legally binding agreement between two or more parties that delineates the terms and conditions governing the delivery of goods or services. The lecture emphasized the necessity of clarity and specificity in contract terms.

2. Elements of a Contract : The lecturer detailed the essential components that render a contract legally valid, including offer and acceptance, consideration, legal capacity, and lawful purpose.

3. Types of Contracts : The lecture addressed various contract types, such as sales contracts, service contracts, and employment contracts, highlighting their distinctive features and typical applications.

2.3 Best Practices and Legal Considerations :

Mr. Abhijit Wasave, then proceeded to offer best practices for both tendering and contract management:

1. Preparing Winning Tenders : The lecture provided valuable insights into crafting compelling and competitive tenders. It emphasized the significance of understanding client requirements, creating clear and well-structured proposals, and demonstrating a track record of reliability.

2. Contract Management : The guest lecturer stressed the importance of efficient contract management. This included aspects like performance monitoring, risk management, and ensuring strict adherence to the contract's terms and conditions.

3. Legal Considerations : Mr. Abhijit Wasave, then highlighted the legal dimensions of tenders and contracts. He discussed dispute resolution mechanisms and underscored the importance of involving legal advisors to draft, review, and, if necessary, litigate contracts.

3.Practical Examples and Case Studies :

Throughout the lecture, Mr. Abhijit Wasave presented practical case studies and real-world examples to illustrate the concepts and best practices discussed. These examples helped attendees grasp the application of tendering and contract management principles in actual business scenarios, enriching their understanding of the subject matter.

4.Conclusion :

The guest lecture on "Tenders and Contracts" was an enlightening experience that shed light on two of the most vital aspects of contemporary business operations. Attendees gained valuable insights into the intricacies of tenders and contracts, and they left the lecture with a deeper understanding of the best practices and legal considerations associated with these topics. Mr. Abhijit Wasave ,offered a wealth of practical knowledge that will undoubtedly benefit participants in their professional endeavours. The event was an overall success, and the knowledge shared promises to have a positive impact on the business community..

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

(Mr.Abhijit Wasave delivering a lecture on Tenders and Contract)s

\

Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai
ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Guest Lecture:03

Name of the Speaker: Mr. Prahlad Rao

Topic name: Life cycle Management of Civil Engineering Projects."

Date: 7th February 2024

Venue: Seminar hall (4th floor, Main Building),

Introduction:

The guest lecture held on 7th February 2024 from 11.00am to 1:00pm gave a deep insight to the Life cycle of a Project. The interactive Session focused on the overall overview of the Project Management overview and life cycle of Civil Engineering Projects. The speaker was felicitated by our honorable H.O.D. Prof. Akshay Mistry & Asst. Prof. Arathy Menon by giving a sapling, as a token of love to our Speaker introduced himself & gave an overall overview of the topics that were going to be discussed in the session.

Summary:

The Session was on topic of "Life cycle Management of Civil Engineering Projects." The speaker started the session with the Project Management Knowledge Ares and PM Process groups with processes. In the session the Speaker explained the key terms and procedures in details, such as the preparation of Project charter and initiate the project, Detailed estimation, Obtaining technical sanction and administrative approval etc. The most important stage of the project hoe to prepare the schedule and cost baseline also were discussed in the guest lecture.

The other topics covered in the session are Definition of mile stones and KPI& how to prepare Performance Measurement Base line, preparation of NIT, tendering documents, awarding contracts, Record and Pay using RA Bills, monitor Execution and Close the Project.

The session was an interactive and informative session as the industry institute interaction is helps to reduce the gap between the industry expectations and academic offerings. Students were delighted by enriching their knowledge through the session by an experienced speaker who guided them about the scope of Project Management and related software's.

Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE New Delhi, Recognized by DTE, Govt. of Maharashtra
And Affiliated to University of Mumbai

ACCREDITED by NAAC with "B++" Grade

DEPARTMENT OF CIVIL ENGINEERING

NEWSLETTER 2023-24

(Mr.Prahlad Rao deleivering a special lecture on Life cycle Management of Civil Engineering Projects)

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Guest Lecture:04

Topic Name: Seminar on Repairs, Rehabilitation and Retrofitting

Name : Repairs, Rehabilitation, and Retrofitting

Date:19/03/2024

Time: 11:00 a.m.

Participants: BE Students

Programme/summary details :

A guest lecture as a part of the 8th-semester curriculum in Civil Engineering, focusing on "Repairs, Rehabilitation, and Retrofitting." The lecture, facilitated by Prof. Ramaya Raju, aimed to enhance students' understanding of various repair techniques for heritage structures and recent advancements in steel structural repairs. The guest lecturer, Mr.Vivek sir , founder of Mamdapur and Associates Consulting Engineers, shared insightful knowledge and practical experiences in retrofitting buildings.at VIVA Institute of technology Virar East, Virar, Maharashtra 401303.

About the seminar: On March 19, 2024, the Viva Institute of Technology in Virar East hosted a guest lecture as part of the 8th-semester curriculum in Civil Engineering. With a focus on "Repairs, Rehabilitation, and Retrofitting," the lecture aimed to provide students with a deeper understanding of various repair techniques for heritage structures, as well as recent advancements in steel structural repairs. The lecture was led by Prof. Ramaya Raju, an esteemed expert in the field of civil engineering, who provided students with an opportunity to learn from the best. The guest lecturer was the renowned founder of Mamdapur and Associates Consulting Engineers, who shared insightful knowledge and practical experiences in retrofitting buildings. The lecture was designed to be engaging, informative, and easy to comprehend for the final year students. The lecture covered diverse topics such as the importance of preserving heritage structures, the methodologies involved in their repair and maintenance, and the challenges and solutions in preserving historical architecture. It also delved into modern techniques and technologies used in the repair and strengthening of steel structures.. The guest lecturer effectively communicated complex concepts in a manner that resonated with the audience, making the learning experience both interesting and enriching. As a gesture of appreciation, the guest lecturer distributed pens to the students, further encouraging their engagement and conveying the importance of active

involvement in academic pursuits. Overall, the lecture was a great success, and the students gained valuable knowledge that they can apply in their future careers.

Conclusion: The guest lecture on repairs of heritage structures and recent structural repairs on steel was a resounding success, thanks to the expertise and engaging delivery of Mr.Vivek sir The session provided invaluable insights into critical aspects of civil engineering, preparing students for the challenges and opportunities in the field of repairs, rehabilitation, and retrofitting.

(Mr.Vivek Mamdapur giving a Seminar on Repairs, Rehabilitation and Retrofitting to our BE Students)

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Guest Lecture:05

Name of the Speaker: Mr. Vivek Bhalchandra Mamdapur

Topic name: Repairs and Rehabilitation of Heritage Structures

Date: 28th March, 2024(Tuesday)

Venue: Seminar hall (4th floor, Main Building),

Viva Institute of Technology, Shirgaon, Virar

Summary of the Lecture:

Mr. Mamdapur began his lecture by emphasizing the significance of preserving heritage structures. He highlighted the rich cultural and historical value these structures hold and stressed the importance of safeguarding them for future generations. He discussed the various challenges faced in the repairs and rehabilitation of heritage structures and provided practical solutions and strategies.Understanding Heritage Structures: The speaker emphasized the need to understand the unique characteristics and construction techniques of heritage structures. By studying their architectural styles, materials used, and historical context, one can develop a comprehensive understanding of the structure's significance and devise appropriate repair and rehabilitation plans. Condition Assessment and Documentation: Mr. Mamdapur highlighted the importance of conducting thorough condition assessments of heritage structures. This involves assessing structural integrity, identifying decay, deterioration, and vulnerability. He stressed the significance of proper documentation through detailed surveys, photography, and mapping to create a baseline for future repairs and rehabilitation works.Conservation Approaches and Techniques: The speaker discussed different conservation approaches and techniques for repairing and rehabilitating heritage structures. He explained the principles of conservation, including minimal intervention, reversibility, and compatibility of materials. Mr. Mamdapur elaborated on various repair

methods.Material Selection and Traditional Techniques: One of the key aspects of heritage structure rehabilitation is the selection of appropriate materials and traditional techniques. Mr. Mamdapur discussed the importance of using compatible materials to ensure structural integrity and authenticity. He highlighted the benefits of utilizing traditional techniques and craftsmanship to retain the original character and aesthetic of the heritage structure. Sustainable and Innovative Practices: The lecture also emphasized the significance of incorporating sustainable and innovative practices in the repairs and rehabilitation of heritage structures. Mr. Mamdapur discussed the integration of renewable energy systems, rainwater harvesting, and eco-friendly materials to minimize the environmental impact and enhance the longevity of the structures. Community Engagement and Stakeholder Collaboration: In the final segment of his lecture, Mr. Mamdapur emphasized the importance of community engagement and stakeholder collaboration in the preservation of heritage structures. He highlighted the need for creating awareness,involving local communities, and fostering partnerships with relevant organizations, government agencies, and professionals to ensure the long-term sustainability of heritage conservation efforts.

Mr.Vivek Mamdapur during guest lecture on Repairs and Rehabilitation for BE Studen

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

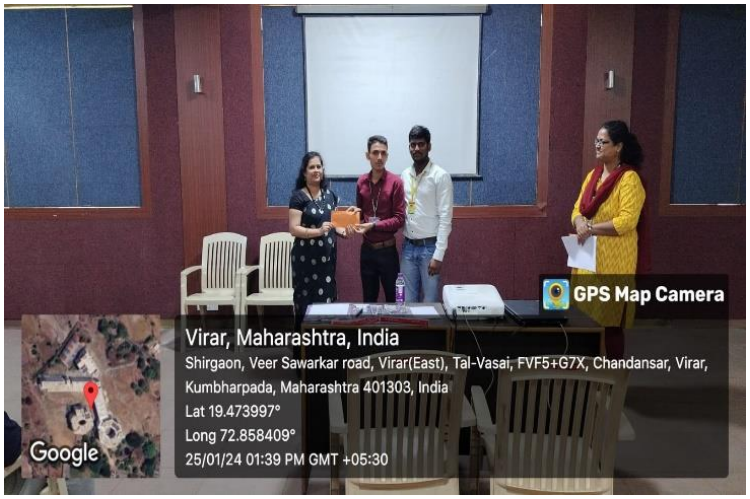
Student Achievements

Our students have done various industry oriented program also they have Actively participated at youth festival with performing overwhelmingly not only in co-curricular but extracurricular as well.

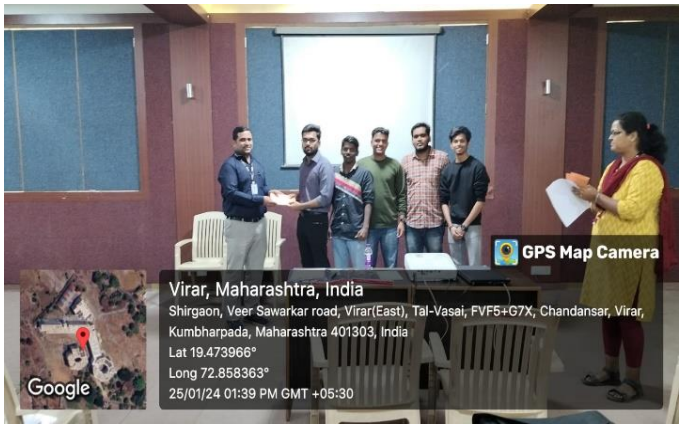
some of the Achievements are highlighted asa follows

The flowing team members won 1st prize in BIS standard club are a follows

1	Izaz khilji
2	shoyeb Ansari
3	vishal karale
4	kunwar rupesh



The flowing team members won 2nd prize in BIS standard club are a follows



1	Tarun Sharma
2	Abhijit Shipkule
3	Trushal sawant
4	Bhavesh Tandel
5	Aryan Thakur

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Ayushi Jain won Consolation Prize in **Debate competition** at 56th inter college youth festival zone 5

DEPARTMENT OF STUDENTS' DEVELOPMENT

56 Youth Festival (Zonal Round)

Certificate of Merit

This is to Certify that Ms. Jain Aayushi Ashok of VIVA Institute of Technology, Shirgaon, Virar participated and secured CONSOLATION in Debate Group B (Hindi or English) competition at 56th Inter-Collegiate / Institute / Department Cultural Youth Festival (Zonal Round): 2023-24 organized at Sonapant Dandekar Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar on August 13, 2023 for Zone V (Thane Western and Palghar).

MR. NILESH SAWE
CULTURAL CO-ORDINATOR
University of Mumbai

DR. SUNIL PATIL
I/c DIRECTOR
Department of Students' Development
University of Mumbai

Date: August 13, 2023
Place: Palghar

- (Vidhi survey yash jadhav samite dandekar) **Team GHOR** secured Second Rank in **One Act Play** Competition (Marathi) at 56th inter college youth festival zone 5, SDSM college Palghar

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Bilal Jindran secured Third Rank in **Mehndi Designing** Competition at 56th inter college youth festival zone 5, SDSM college Palghar

Samita Dandekar secured Third Rank in **Natyasangeet Vocal Solo Competition** (Marathi) at 56th inter college youth festival zone 5

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Techchase

Events: Bridge o mania Float the Boat Power Tower Land the Astronaut	A technical Event was arranged at the institute level to add technical knowledge and fun elements for the students of the campus. The events undertaken by the civil Engineering departments were

:: Project Competition(Aakar)

	A inter departmental technical project competition were arranged 5 April 2024.students from various college participated made the event a great success.

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Mahindra Lifespaces	Mahindra Lifespaces Developers Ltd. It was pleasurable and Great Experience conducting the campus placement..the below students have shortlisted from the drive: Ayushi Jain Ankita Palav Vidhi Surve

	Alumni meet was arranged on 1st April 2024.it served as a platform to reunite the entire passed out students of civil Engineering from VIT.the event was inaugurated by Principal Dr.Arun Kumar..the students shared their experience from VIT around 100 students were present during their functions

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Program for faculty Development

Date of Visit: 28/06/2024

Purpose: Site visit

Participants: Faculty of Civil Engineering and Paresh Unnarkar & Associates

Venue:Virar(E)

Objective:

The purpose of this site visit was to evaluate the design and construction progress of the sewage treatment plant (STP) being developed for the hospital building. The visit aimed to assess the project's alignment with the design specifications, compliance with environmental standards, and overall progress toward completion.

Project Overview:

The sewage treatment plant is being constructed to manage the wastewater generated by the hospital building. The plant is designed to treat sewage to a level that meets regulatory standards before the treated effluent is safely discharged. The STP incorporates modern treatment technologies, including primary, secondary, and tertiary processes, to ensure efficient wastewater management.

Key Areas of Observation:

1. Site Layout and Infrastructure:

- **Site Preparation:** The site has been cleared and prepared for construction, with necessary excavation completed. The foundation work for the STP structures was observed to be in progress.
- **Structural Integrity:** Reinforcement work for the base of sedimentation tanks and other major structures was reviewed. The construction materials, including concrete and steel reinforcements, were found to be of high quality, meeting the design specifications.
- **Accessibility:** The site layout was inspected for accessibility, ensuring that all plant components are strategically positioned for efficient operation and maintenance.

2. Design Compliance:

- **Design Plans:** The design plans were reviewed, with a focus on alignment between the on-site construction and the architectural and engineering drawings. The site team was adhering closely to the design specifications, with minor adjustments being made in consultation with the design engineers.

- **Capacity Considerations:** The design capacity of the plant was confirmed to be adequate for the anticipated sewage load from the hospital. Provisions have been made for future scalability, allowing for potential expansions as the hospital grows.

3. Construction Progress:

- **Foundation Work:** The foundation work for the main treatment units, including the primary clarifiers and aeration tanks, was observed to be progressing well. The use of high-strength concrete was noted, ensuring durability and long-term performance.

4. Coordination and Communication:

- **Stakeholder Engagement:** Regular coordination meetings between the design team, contractors, and hospital management were highlighted as a strength of the project. This ongoing communication ensures that any issues are promptly addressed and that the project remains on schedule.

- **Documentation:** The site team maintained thorough documentation of the construction process, including daily logs, inspection reports, and material quality certificates. This documentation will be valuable for future reference and audits.

Observations and Recommendations:

- **Quality Control:** The construction quality observed during the visit was generally high. However, the team recommended the continuation of stringent quality control measures, particularly as the project moves into more complex phases, such as the installation of treatment equipment.

- **Timely Completion:** The project is on track to meet its scheduled completion date, though the team emphasized the importance of maintaining momentum and avoiding any delays that could impact the hospital's operations.

- **Training and Handover:** As the construction nears completion, planning for the training of operational staff and a detailed handover process should begin. This will ensure a smooth transition from construction to operation.

(*faculty Site visit at Sewage treatment plant of hospital along with Paresh Unnarkar sir)*

DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2023-24

Contact:

Department of Civil Engineering

Viva institute of Technology

Shirgaon

Maharashtra 401303.