



Vishnu Waman Thakur Charitable Trust
VIVA INSTITUTE OF TECHNOLOGY
Shirgaon, Post: Virar (W), Tal: Vasai, Dist: Palghar – 401 305.
DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2021-22





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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 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.



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- 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



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- 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.
- Students will be able to innovate 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 **16 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, TOFFIL and secured admission for post graduate programme 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 relationship conducting special lectures in current developments.



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NEWSLETTER 2021-22

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.

LIST OF LABORATORIES

Sr No.	Laboratory Name	Location
1	BMC LAB	WORKSHOP Gr. Floor
2	ENG. GEOLOGY LAB	CIVIL-MECH BUILDING 5 TH FLOOR
3	SOM LAB	MAIN BUILDING A – 009 Gr. Floor
4	FM LAB	WORKSHOP Gr. Floor
5	SURVEY LAB	MAIN BUILDING Gr. Floor A-002
6	CT LAB	WORKSHOP Gr. Floor
7	TRANSPORTATION LAB	MAIN BUILDING Gr. Floor A-003
8	ENVIRONMENTAL LAB	MAIN BUILDING Gr. Floor A-001
9	GEOTECH LAB	WORKSHOP Gr. Floor & MAIN BULDG
10	APPLIED HYDRAULICS	WORKSHOP Gr. Floor
11	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



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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.

A Newsletter mirrors the success story of an institution and act 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 contribution made by all members of Electrical 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 present issue of 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 successfully. Civil engineering



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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.

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 class rooms 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.



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NEWSLETTER 2021-22

FACULTY DETAILS:

Sr. No.	Name of the Faculty	Experience in Years	Journal Publications
1	Lissy Jose	23	9
2	Akshay Mistry	11	12
3	Ramya Raju	9	18
4	Monica More	9	12
5	Arathy Menon	11	13
6	Abhijit Wasave	8	8
7	Ashish Shetty	8	11
8	Meena Bhagat	8	10
9	Pratibha Patil	8	7
10	Jimit Chotai	8	11
11	Asmita Bhalke	8	6
12	Yadnesh Patil	7	10
13	Purva Awari	7	5
14	Prashant Gondane	7	7
15	Mayur Patel	7	7
16	Dr. Rajeev Kale	21	12

FACULTY DEVELOPMENT INITIATIVES

Department Library



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The department strives to provide with the best possible opportunity for the staff and the students to enhance their knowledge, 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 presence of head of department principal conducts one to one meeting with all the teachers 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 academic calendar, HOD of 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.



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NEWSLETTER 2021-22

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.

STTP Report June 22

STTP Report on “Concrete in an era of High-Rise”

One week short term training program on “Concrete in an era of High-Rise” under ISTE was organised by the Civil Engineering department, VIVA Institute of Technology during 27th June 2022 to 01st July 2022. There were 16 participants in the STTP. The participants were from Civil Engineering Discipline.

The STTP was inaugurated on 27th of June 2022, Monday at 10.00 am by HOD Civil Engineering, Prof. Lissy Jose in the presence of Guest speaker, Mr. Ibrahim Shaikh. The crowd was addressed by Prof. Abhijit Wasave and the details of STTP were shared.

Day 1 10.30 am to 12.30 pm

Lecture 1 Mr. Ibrahim Shaikh

Different types of admixture & their uses.

The aim was to understand the purpose of Admixture in concrete and to explore the availability of different types of admixture to meet the needs of different project requirements, working condition and environment. Some admixtures are synthetic product while some are derived from waste products and they should be used in small amount relative to the volume of concrete. This helps to reduce the effect of concrete on the environment.



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NEWSLETTER 2021-22



Mr. Ibrahim shaikh explaining about different types of Admixtures and their use

Day 1 2.00 pm to 4.00 pm

Lecture 2: Dr.Vishal Thombare

Topic: Mumbai Coastal Road Project- South

Mumbai coastal road project is a 8 lane ,22.2 km long freeway that would run along marine lines to kadivali.it will be built in two phases. phase 1 will be from princess street flyover at marine line to the worli end of Bandra worli sea link and and phase 2 will be from bandra end of bandra wol sea link to kandivali .Contracts are awarded in four packages. L&T was awarded with package 1 and 4, it includes a construction of a 3.82km long section from priyadarshini park to baroda palace and whereas a joint venture between Hindustan Construction company and Hyundai Development company was awarded package 2 and 3.



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NEWSLETTER 2021-22



Dr. Vishal Thombare giving details about Mumbai Coastal Road Project- South

Day 2: 10.00 am to 12.00 pm

Lecture 1 Mr. Sanjeev Raje

Topic: Importance of CTM in the RMC industry

compression testing is a complex phenomenon. there are many factors that affect concrete compression. specimen size, geometry and friction all affect the observed results. the testing regime of concrete under compression should be incorporated in such ways so as to reduce the effect of any external influence.

Day 2: 2.00 pm to 4.00 pm

Lecture 2: Mr. Sanjeev Raje

Topic: Importance of CTM in the RMC industry



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NEWSLETTER 2021-22

There are many challenges encountered while performing compressive testing of cubes .When operating should be strictly forbidden to exceed the marking line on the vertical column. one should always check whether the hydraulic tank is sufficient and oil standard shall prevail.also it is strictly forbidden to start the motor at high pressure to avoid damaging the electrical appliances.



Mr. Sanjeev Raje Explaining about Importance of CTM in the RMC industry

Day 3: 10.00 am to 12.00 pm

Lecture 1 Prof. Ashok Chavan

Topic: Strength and Durability study of High strength blended concrete made using supplementary cementitious materials.

The study was carried out to evaluate the strength and durability properties of concrete containing supplementary cementitious materials.the aim was to produce high performance concrete that can be used in any weather .The concrete durability was evaluated and it was suggested that durability can be enhanced with the use of supplementary cementitious material.

Day 3: 2.00 pm to 4.00 pm



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NEWSLETTER 2021-22

Lecture 2: Prof. Ashok Chavan

Topic: Strength and Durability study of High strength blended concrete made using supplementary cementitious materials.

It was seen that SCM such as blast furnace slag, fly ash not only reduces the production of concrete but also has technical advantage. It reduces heat of hydration as well as enhances durability. It was seen that SCM improves particle packaging efficiency of ultra high performance concrete. It was recommended to use optimal amounts of SCM which do not compromise mechanical properties of UPHC.



Mrs. Lissy Jose welcoming Prof. Ashok Chavan



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NEWSLETTER 2021-22

Day 4: 10.00 am to 12.00 pm

Lecture 1: Mr. Mahesh Tendulkar

Topic: Latest Trend in Concrete Technology.

The insight gained from this session is that building codes have a reputation of being one of the most daunting aspects of the construction process for even the most experienced building owners, contractors and other industry professionals. It helps to figure out various things such as it promotes safety, incorporates past learnings, offers environmental perks, protects future generations and etc.



Mr. Mahesh Tendulkar Explaining about Latest Trend in Concrete Technology.



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NEWSLETTER 2021-22

Day 4: 2.00 pm to 4.00 pm

Lecture 2: Mr. Sadanand Govilkar

Topic: Advanced Concrete Technology.

The durability design of the concrete structures has been performed for the carbonation-induced corrosion and chloride-induced corrosion through partial factor design format and the target reliability index is fixed. The results were adopted as the basis for the design of concrete structures in detailed design and construction phases.

Day 5: 10.00 am to 12.00 pm

Lecture 1: Mr. Ajay Vitthal Shinde

Topic: Composite Steel Bridge Design

The session presented worked examples of the detailed design of composite highway Bridge. It is formed by steel girders acting compositely with a reinforced concrete deck slab. The evaluation of design values of loads, Bending moment, shear resistance and limiting SLS criteria were carried out according to the codes incorporated in staad pro.



Mr. Ajay Vitthal Shinde explaining about Composite Steel Bridge Design



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NEWSLETTER 2021-22

Departmental Activities:

Every year Department conducts various events and activities to emphasize student's overall development and improvement. These include academic as well as extra curriculum activities. Students are motivated to participate and present papers in national conference. Industrial visits are also arranged time to time for getting exposure of industrial environment. Guest lectures are also organized by inviting resource person from industries of high repute. Faculty development program, approved by ISTE, is also organized for their skill developments.

Guest Lectures

1. Guest Lecture on “Approvals and Sanctions in Construction” :-

We are a grateful to have a guest speaker “Mr. Smith Patel” from “Devendra Mistry and Associates.” on “Approvals and Sanctions in construction” for our final year Civil Engineering students on 1st April 2022 his lecture was much informative, knowledgeable and motivating to students.



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NEWSLETTER 2021-22



Today construction Industry is one of the booming industries .the builder comes up with the project that suits the market demand but before that he requires to have the approval and sanctions from the concerned authority for its execution. Mr. smith Patel helped us to understand what are the various approvals which the builder must acquire before engaging in construction activity and what are the various sanctions which the buyer must check before investing in the project.

2. Guest Lecture on “ Design of steel structure” :-

We are a grateful to have a guest speaker “Ms.Ankita Patil” from “MP Prime.” on “design of steel structures” for our third year Civil Engineering students on 12th April 2022 her lecture was much informative, knowledgeable and motivating to students.



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NEWSLETTER 2021-22



The department of civil engineering organized a guest lecture on Design of steel Structures. the lecture covered concepts of steel structure Design under different types of loading conditions, pre-engineered buildings and different building codes used in India and other countries for design.

Site Visit

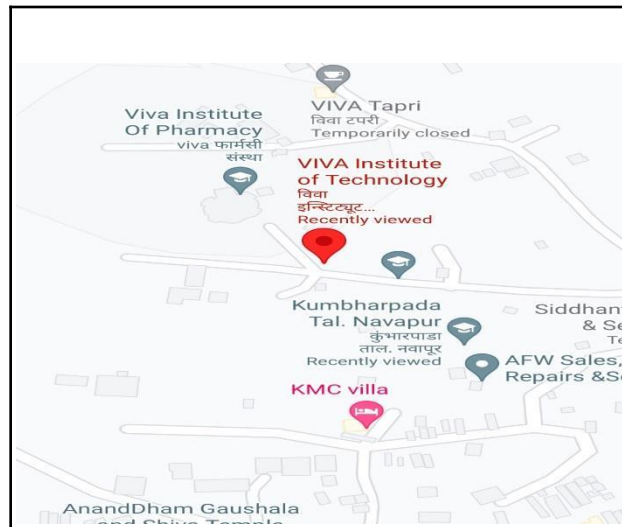




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NEWSLETTER 2021-22

The department of civil engineering organized a Site visit to Surya dam. The learning objective was to make students understand various parts of dam. the officers of the dam explained that the water comes from Dahanu surya dam to maswan surya dam, from there it is collected in two wells and the water passes through four big pumps to dukhtan water filter plant. the water gets filtered and it is supplied to cities like vasai and virar.

Contact:



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NEWSLETTER 2021-22