Late Shri Vishnu Waman Thakur Charitable Trust
VIVA INSTITUTE OF TECHNOLOGY
Shirgaon, Post: Virar (W), Tal: Vasai, Dist: Palghar – 401 305.
DEPARTMENT OF CIVIL ENGINEERING
NEWSLETTER 2018-19

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.

- 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.

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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.
- 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 21 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. 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 5TH 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

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NEWSLETTER 2018-19

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.

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!

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DEPARTMENT OF CIVIL ENGINEERING

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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 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 pattent.

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.

FACULTY DETAILS:

Sr. No.	Name of the Faculty	Experience in Years
1	Lissy Jose	19
2	Akshay Mistry	8
3	Ramya Raju	5
4	Monica More	5
5	Sagar sundaran	5
6	Meena Bhagat	5
7	Ashish Shetty	3
8	Abhijit Wasave	5
9	Jimit Chotai	4
10	Pratibha Patil	4
11	Asmita Bhalke	4
12	Yadnesh Patil	4
13	Ghufran khan	4
14	Akshay Naik	3
15	Vishal Urade	3
16	Purva Awari	4

17	Prashant Gondane	3
18	Mayur Patel	3
19	Prerana Patil	3
20	Arathy Menon	4
21	Prachi Bari	3

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, 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 from 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.

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.

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.

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DEPARTMENT OF CIVIL ENGINEERING

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Short Term Training Programme 2018-19: Innovative Trends in Civil Engineering

Topic Name:	**Innovative trends in Civil Engineering**
Name of the Guest Speaker:	**1. Prof Asir Khan** **2. Mr Paresh Unnarkar** **3. Dr.Ajit Salvi** **4. Vivek Mandapur** **5. Mrs Yojana Patil** **6. Dr.Sharvil Faroz** **7. Dr.Tejaswini D.Nalamuth**
Date:	**24th June 2019 to 28th June 2019**
Time:	**10.00 Onwards**

Programme Summary/Details:

One-week short term training program on "Innovative Trends in Civil Engineering "under ISTE was organized by Civil Engineering Department, VIVA Institute of Technology during 24th June 2019 to 28th June 2019. There were 18 participants in the STTP. The participant was from Civil Engineering Discipline.The STTP was inaugurated on 24th of June 2019, Monday at 10.00 Am by HOD Civil Engineering, Prof. Lissy Jose in the presence of Guest Speaker Prof. Asir Khan. The crowd was addressed by Prof. Meena Bhagat and the details of STTP were shared.

Topic covered in the STTP on "Innovative trends in Civil Engineering'

- Road Safety and role of public transport
- Durability-Performance based approach
- Design aspects of Sewerage system
- Septage Management
- Environmental Management
- Construction Law
- Real time data acquisition
- Water Quality Management

Photos:

Guest Lecture:

(1.)Topic Name:	ADVANCED CONCRETE TECHNOLOGY
Name of the Guest Speaker:	Mr. Ulhas Paranjpe
Designation:	Trustee- Jalvardhini Prartishthan
Organization/Institution:	Indian Water Works Association
Date:	11/09/18
Time:	11.00 Onwards

Programme/ Summary Details: The Speaker initiated his talk by outlining the topics that would prove inevitably essential for civil engineers in the workplace. He detailed the project criteria pertaining to the construction site, use of materials, and limitations. With impeccable eloquence, he portrayed the erection process, function, and working mechanism of marine structures such as wharves, breakwaters, and fender piles. He explained the on-shore operations such as mooring, berthing, and also mode of failure in piers. He elucidated the mechanisms of the deterioration of concrete in marine structures and concluded his talk with an animation that showed the construction of wharves.

As the session culminated, the Guest was presented with a memento by the Head of the Civil Engineering Department. The session concluded at 12.50 pm. At the end of the assembly, the students were well satisfied with the information that was shared.

(2.)Topic Name: TRANSPORTATION ENGINEERING I

Name of the Guest Speaker: Mr. Vivek Mamdapur

Designation: Asst. Professor

Organization/Institution: M.G.M College of Engineering

Date: 28/09/18

Time: 11.00 Onwards

Programme/ Summary Details: Highway engineering is an engineering discipline ranching from civil engineering that involves the planning, design, construction, operation, and maintenance of roads, bridges, and tunnels to ensure safe and effective transportation of people and goods. Use of bituminous concrete and cement concrete are the most important developments. Various advanced and cost-effective construction technologies are used. Development of new equipment help in the faster construction of roads. Many easily and locally available materials are tested in laboratories and then implemented on roads for making economical and durable pavement.

Flexible pavements will transmit wheel load stresses to the lower layers by grain-to-grain transfer through the points of contact in the granular structure. The wheel load acting on the pavement will be distributed to a wider area, and the stress decreases with the depth. Taking advantage of this stress distribution characteristic, flexible pavements normally have many

layers. Hence, the design of flexible pavement uses the concept of a layered system. The lower layers will experience a lesser magnitude of stress and low-quality material can be used. Flexible pavements are constructed using bituminous materials. These can be either in the form of surface treatments (such as bituminous surface treatments generally found on low-volume roads) or, asphalt concrete surface courses (generally used on high-volume roads such as national highways). Flexible pavement layers reflect the deformation of the lower layers onto the surface layer (e.g., if there is any undulation in the subgrade then it will be transferred to the surface layer). In the case of flexible pavement, the design is based on the overall performance of flexible pavement, and the stresses produced should be kept well below the allowable stresses of each pavement layer.

Rigid pavements have sufficient flexural strength to transmit the wheel load stresses to a wider area below. Compared to the flexible pavement, rigid pavements are placed either directly on the prepared subgrade or on a single layer of granular or stabilized material. Since there is only one layer of material between the concrete and the subgrade, this layer can be called a base or sub-base course. In rigid pavement, the load is distributed by the slab action. Rigid pavements are constructed by Portland cement concrete (PCC) and should be analyzed by plate theory instead of layer theory, assuming an elastic plate resting on a viscous foundation. Plate theory is a simplified version of layer theory that assumes the concrete slab is a medium-thick plate that is plane before loading and remains plane after loading. Bending of the slab due to wheel load and temperature variation and the resulting tensile and flexural stress.

(3.)Topic Name: IRRIGATION ENGINEERING

Name of the Guest Speaker: Mrs. Preeti Sreevastava

Designation: Asst. Professor

Organization/Institution: NMIMS, Mukesh Patel College of Engineering

Date: 08/10/18

Time: 11.00 Onwards

Programme/ Summary Details: The guest explained students about the concept of the works involved in irrigation engineering may oversee the installation of pipelines and sprinklers or be involved in directing water from dams, canals and rivers and the work is done in the field to evaluate terrain, soil and climatic characteristics to optimize the use of water for lawns and agricultural crops. In addition to that explained the process of harnessing and supplying water from natural resources artificially to water-deficient areas for growing crops. This process can be carried out in 3 ways: Surface Irrigation: In this process, water from the

supply channel flows over the entire region due to gravity and then seeps down to the roots. Sub-Irrigation: This method is used in areas that have a high-water table and porous topsoil that absorbs the moisture slowly. Along the sides of the fields, ditches are dug not only to monitor the level of the water but to replenish the water supply when it is low. Overhead Irrigation: These irrigation systems best resemble the natural waterfall. Considered one of the most modern and advanced forms of irrigation, these systems make use of conveyor pipes, pumping units, and sprinkler mechanisms to divert water. Totally 40 participants attended the lecture and actively interacted with the speaker.

(4.)Topic Name: CONSTRUCTION MANAGEMENT

Name of the Guest Speaker: Mrs. Preeti Sreevastava

Designation: Asst. Professor

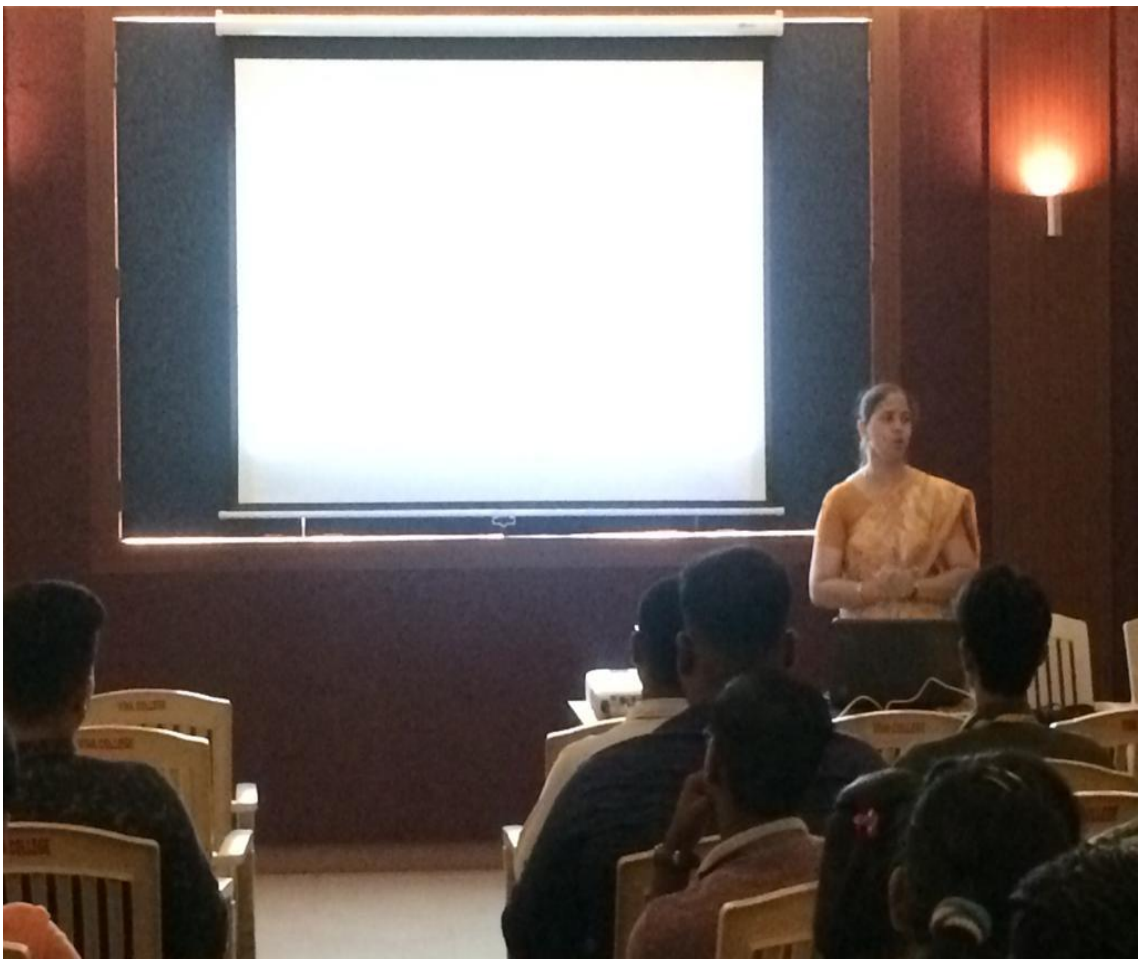
Organization/Institution: NMIMS, Mukesh Patel College of Engineering

Date: 11/09/18

Time: 11.00 Onwards

Programme/ Summary Details: The speaker addressed the gathering on various Job opportunities in Construction Project Management sector. And she explained about them to the various roles of a construction project manager with real time case studies. In her

presentation she addressed about all the major facets of construction Project management including Project initiation and planning, scheduling techniques, organizing methods, controlling process and Resource allocation. Later on she discussed about the software tools involved in construction scheduling process and the importance of using the software tools for the accurate estimation of all kind of resources for a project. Uses of Software tools like Primavera and MS Project in construction planning and scheduling process also explained to the students. Finally, she discussed about various risk involved in construction projects and emphasized the importance of quality and safety in construction projects. Network diagram techniques like Critical Path Method (CPM) and Project Evaluation and Review Techniques (PERT) also discussed by the students during the questionnaire session. The session was very clear, informative and useful for all the budding Civil engineering professionals for their careers. More than 120 students from final year Civil Engineering attended the programme and benefited.



(5.)Topic Name: DESIGN AND DRAWING OF STEEL STRUCTURES

Name of the Guest Speaker: Mr. Ajay Shinde

Designation: Propreitor

Organization/Institution: Sunteck Center

Date: 29/03/19

Time: 11.00 Onwards

Programme/ Summary Details: The speaker advised the students to pursue this domain in civil engineering, as it would greatly increase in the coming few years. He said that a major field in civil engineering would be rehabilitation, and this is a good time to start a venture in rehabilitation. Rehabilitation of another Rail-Over Bridge, the Markapur ROB, for the Public Works Department of Hyderabad was done. Design defects were found in 13 slabs, where the reinforcement provided was 28% less than that of what was required. Hence, strengthening had to be carried out. Various cracks were already present, and a linear potentiometer was used to measure the deflection caused. Two testing vehicles (trucks) of 41.5-ton capacity each were placed over the deck slab. The cost for demolishing and reconstructing the span of 7 meters was ₹27 crores, while the rehabilitation cost was ₹2.5 crores. Since the rehabilitation cost was less than 10% that of reconstructing, it was a very beneficial method. A check for extreme loading condition was carried out. The last project was a Rail-Over Bridge for the Western Railway. The bridge being restored in this case was a 40-year-old bridge, numbered as Bridge 114. It had a 20- PAGE 3 meter-long, 1.7-meter depth PSC girder, having permissible limit of deflection of 8- 9 mm. However, the deflection had gone up to 22 mm. A simple solution to such a problem in the railways would be to reduce the speed of trains passing in that section. The Railways wished to monitor the bridge for two years, and hence a number of sensors were installed. Grouting of cracks, rust protection of reinforcement and rust removal were carried out. A window of two hours was given to carry out the 8 pre-stressings required.

(6.)Topic Name: ADVANCED CONSTRUCTION EQUIPMENT

Name of the Guest Speaker: Mr. Vivek Mamdapur

Designation: Visiting Faculty

Organization/Institution: M.G.M. College of Engineering

Date: 04/04/19

Time: 11.00 Onwards

Programme/ Summary Details: The speaker advised the students to pursue this domain in civil engineering, as it would greatly increase in the coming few years.

Also the speaker gave immense importance on the upcoming and latest equipment's in the field of civil engineering. The equipment's and technology that have grown in this industry in the last few years have grown many folds and one take up a career in the equipment's and technology as well.

The lecture was concluded by 12.30pm with the vote of thanks by one of the students after sharing his thought and wonderful experience on the lecture.

(7.)Topic Name:	TRANSPORTATION ENGINEERING II
Name of the Guest Speaker:	Mr. Vivek Mamdapur
Designation:	Visiting Faculty
Organization/Institution:	M.G.M. College of Engineering
Date:	04/04/19
Time:	11.00 Onwards

Programme/ Summary Details: The speaker advised the students to pursue this domain in civil engineering, as it would greatly increase in the coming few years. Flexible pavements will transmit wheel load stresses to the lower layers by grain-to-grain transfer through the

points of contact in the granular structure. The wheel load acting on the pavement will be distributed to a wider area, and the stress decreases with the depth. Taking advantage of this stress distribution characteristic, flexible pavements normally have many layers. Hence, the design of flexible pavement uses the concept of a layered system. The lower layers will experience a lesser magnitude of stress and low-quality material can be used. Flexible pavements are constructed using bituminous materials. These can be either in the form of surface treatments (such as bituminous surface treatments generally found on low-volume roads) or, asphalt concrete surface courses (generally used on high-volume roads such as national highways). Flexible pavement layers reflect the deformation of the lower layers onto the surface layer (e.g., if there is any undulation in the subgrade then it will be transferred to the surface layer). In the case of flexible pavement, the design is based on the overall performance of flexible pavement, and the stresses produced should be kept well below the allowable stresses of each pavement layer.

(8.)Topic Name:	BUILDING MATERIAL AND CONCRETE TECHNOLOGY
Name of the Guest Speaker:	Mr. Vivek Mishra
Designation:	Quality Engineer
Organization/Institution:	Global Labs
Date:	29/03/19
Time:	11.00 Onwards

Programme/ Summary Details: Initially, he discussed about the various building materials available today and explained the concepts such as Composition of cement, Manufacturing of cement, Hydration of cement, Pozzolanic Reaction, Properties of Concrete. He stressed on use of fly ash in concrete to reduce environmental pollution because disposal of fly ash (which is waste product of Thermal Power Plant), has become a serious environmental problem. Secondly, production of every tone of cement emits Carbon Dioxide to the tune of about 0.87 tones. According to him, 28% fly ash has been utilized while manufacturing Ultra Tech cement. Further, he explained to the students job opportunities in Civil Engineering, how to face interviews, importance of dressing sense and positive body language. He more focused on communication skills. He explained all the things in narrative manner and enthusiastically. All the students of Department of Technology inspired by his speech.

Site Visit:

(1.) **Place of Visit: Pise Panjrapur Bhiwandi**

Name of Subject:	Environmental Engineering-I
Place:	Pise-panjrapur Bhiwandi, Maharashtra
Organization/Institution:	Viva Institute of technology virar
Date:	29/08/2018

Department of Civil Engineering, VIVA Institute of Technology, Virar organised a site visit to Pise-panjrapur Bhiwandi, Maharashtra for the Subject Environmental Engineering-I. All the students of V semester and four faculties from the Civil Engineering Department were visited the treatment plant on 29th August 2018.

The Panjrapur centre is considered as one of the most important water purification plants in the city. The equipment in this centre are used continuously and the process of water purification continues ceaselessly. The water processed at this centre is supplied to Mumbai via the reservoirs at Yewai in Thane. “About 55% of Mumbai’s total water is supplied through this water processing canter.

(2.)**Place of Visit: Gargoti Museum, Sinnar, Malegaon, Maharashtra**

Name of Subject: Engineering Geology

Place: Gargoti Museum, Sinnar, Malegaon, Maharashtra

Organization/Institution: Viva Institute of technology virar

Date: 07/10/2018

Department of Civil Engineering, VIVA Institute of Technology, Virar organised a site visit to Gargoti Museum, Sinnar for the Subject Engineering Geology. All the students of III semester and four faculties from the Civil Engineering Department were visited the Museum on 07th September 2018.

The Gargoti Museum is a museum in the town Sinnar near Nashik in Indian state of Maharashtra that houses a collection of natural mineral & gem specimens collected by K.C.Pandey over 40 years. The word "goti" refers to a Marathi word meaning stone or pebble. This is India's 1st & only Gem, Mineral & Fossil Museum. The collection of stones was huge and explanations given by the guide of Museum was fruitful. Visit was very informative and together the faculties and students enjoyed the tip and gained much knowledge about stone

(3.)**Place of Visit: Near D-mart, Virar west, Maharashtra**

Date of Visit: 03th March 2019.

Name of Subject:	Transportation Engineering-II
Place:	Near D-mart, Virar west, Maharashtra
Organization/Institution:	Viva Institute of technology virar
Date:	03/03/2019

Department of Civil Engineering, VIVA Institute of Technology, Virar organised a site visit Near D-mart, Virar west, Maharashtra for the Subject Transportation Engineering-II. All the students of VI semester and four faculties from the Civil Engineering Department were visited the site on 13th March 2019.

Traffic volume study is done at intersection road near D-mart Virar. Traffic volume study is procedure to determine mainly volume of traffic moving on the roads at a particular section during a particular time. Calculation of traffic load and traffic intensity is calculated by this method

(4)**Place of Visit: Ameya RMC Plant, Nalasopara East, Maharashtra**

Name of Subject: Building Materials and Construction Technology

Place: Ameya RMC Plant, Nalasopara East, Virar.

Organization/Institution: Viva Institute of technology virar

Date: 08/03/2019

Date of Visit: 8th March 2019.

Department of Civil Engineering, VIVA Institute of Technology, Virar organised a site visit to Ameya RMC Plant for the Subject Building Materials and Construction Technology. Students of semester IV accompanied by 4 faculties of our department visited the site on 8th of March 2019.

Ameya RMC Plant in Nalasopara East, Palghar, Mumbai is known to satisfactorily cater to the demands of its customer base. It stands located at Valaipada, Manevale Pada, Nalasopara East. Students understood the procedures carried out in an RMC Plant. The in charge of the plant explained the mix design to students.

(4.) **Place of Visit: Water Treatment Plant, Bhandup, Maharashtra**

Name of Subject: Environmental Engineering-II

Place: Water Treatment Plant, Bhandup, Maharashtra

Organization/Institution: Viva Institute of technology virar

Date: 16/02/2019

Date of Visit: 16th February 2019.

Department of Civil Engineering, VIVA Institute of Technology, Virar organised a site visit Water Treatment Plant, Bhandup, Maharashtra for the Subject Environmental Engineering-II. All the students of VIII semester and four faculties from the Civil Engineering Department were visited the Treatment plant on 16th February 2019.The water supply to entire city of Mumbai is received from Upper Vaitarna, Middle Vaitarna, Modak sagar,Tansa,Vehar,Tulsi lake sources and Bhatsa river source and is treated at water treatment plants located at Bhandup Complex,Panjarapur,Vehar, and Tulsi. Raw water supply from 108 Upper Vaitairna,96 Vaitairna,72 Tansa(E) and 72 Tansa (W) water mains is received through a 5.5 meter diameter underground tunnel from Gundavali to Bhandup Complex to Inlet Bay of Bhandup Complex Treatment Plant. The Raw water thus received has to be treated and various impurities are removed to bring charactestics of received water to potable water standards suitable for safe human consumption by adopting following treatment process.

Contact:

Department of Civil Engineering

Viva institute of Technology

Shirgaon

Maharashtra 401303.