



Late Shri Vishnu Waman Thakur Charitable Trust's

VIVA INSTITUTE OF TECHNOLOGY

Shirgaon, Virar (E), Tal: Vasai, Dist: Palghar – 401 305.



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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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 kadviali.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.

Day 2: 10.00 am to 12.00 pm

Lecture 1 Mr. Sanjeev Raje

Topic: Importance of CTM in the RMC industry



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compression testing is a complex phenomenon. there are many factors that affect concrete compression. specimen size, geometry and friction all affects 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

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.



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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

Lecture 2: Prof. Ashok Chavan

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



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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.



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.



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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.





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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.

