BIRLA VISHVAKARMA MAHAVIDYALAYA

An Autonomous Institution
(Managed by Charutar Vidya Mandal)

Report of Webinar
Organized by
Structural Engineering Department
in association with
IE(I) Students' Chapter - Civil and ISTE

Knowledge Shared = Knowledge²

Objective of the Webinars:

The coronavirus pandemic brought the world to a standstill, exposing the potential risks of living in mega cities of the future. Series of webinars have been organized in a view to allow civil engineers to anticipate and mitigate unprecedented events as they design and reimagine the smart and resilient infrastructure for present and future. The webinar have been planned to provide exposure to the faculty and students of about the future Technologies. The webinar included five technical talks by industry experts

Institute Glance

Birla Vishvakarma Mahavidyalaya Engineering College was established in 1948 from donations made by the Birla Education Trust on the behest of Sardar Vallabhbhai Patel, the first Home Minister of independent India. Functioning under the umbrella of Charutar Vidya Mandal (CVM), BVM is the first engineering college of Gujarat state established way back in 1948. BVM is the first Autonomous Engineering institute of Gujarat to obtain academic autonomy for all its UG & PG programs, by University Grant Commission (UGC). More than 20000+ engineers have graduated from BVM College engaged in varieties of field across the globe. Institute offers 08 B.Tech and 08 M.Tech degree courses. The college is affiliated to the Gujarat Technological University. It is a matter of pride, that the Institute has successfully completed prestigious World Bank Assistance Project, TEQIP-II of INR 10 crores and further has been continuing with TEQIP-III grant of INR 7 crores. Majority programs of BVM are awarded accreditation by NBA-AICTE.

Charutar Vidya Mandal (CVM)

CVM was established in the year 1945 by Shri Bhaikaka and Shri Bhikhubhai as a charitable trust with a prime objective of rural development through education to bring about the social awakening, social upliftment, and enrichment. Over the subsequent years, Dr. H M Patel (the first finance minister of India) consolidated the efforts put in by the founders. Later on, in the 1990s. In 1994, Dr. C L Patel took over the reigns of CVM as the chairman, and through his dynamic leadership, missionary zeal and visionary outlook. CVM rejuvenated the ongoing education system but added a modern education campus at New Vallabh Vidyanagar Recently, Er. Bhikhubhai Patel took a charge. He is a visionary personality with a goal to enhance the quality of education using recent technological advancements. It runs 48 institutions from KG to Post Doctorate, almost in all branches of education and catering more than50, 000 students from 21 states and 12 countries across the world.

About Department

The Departments of Structural Engineering is one of the most efficient departments of Institute. The departments has highly qualified, well experienced and dedicated faculty members. The department is equipped with advanced instruments and equipment for research facilities. Experts from leading industries and educational institutes are invited frequently for guest lectures on recent developments for the benefit of students and staff. The department is deeply involved in Testing and consultancy work besides quality research.

CVM is one of India's leading NGO and non-profitable charitable organization working in the field of education founded to cater education to the rural mass of Gujarat. In this age of the Global Village, when global interdependence and competition are upon us, CVM is trying to educate and train our youngsters to keep up and keep pace with the best and the brightest in the world. CVM is offering all the programmes of study appropriate to the modern age, and maintaining high standards of education. CVM is always supporting all the activities for Students and faculties' development. In this COVID-19 Situation, our all institutes are trying best by organizing such a webinars so that students and faculties get benefitted and enhanced their knowledge.

– Er. Bhikhubhai Patel, Chairman, CVM

The COVID-19 pandemic has already had tremendous impacts on the Education sector also. Looking to the conditions to encourage Research, Innovation & Globalization, BVM is continuously involved in organizing seminars, workshops and Webinars at various platforms. Different Departments and Chapters like ISTE, IE (I), SSIP, IEEE, Training and Placement Cell, PG Research Centers are set for the constant development and up gradation of the education at the Institute on digital platform in this situation. BVM is constantly taking step towards development of faculties and industry academia partnerships.

- Dr. Indrajit Patel, Principal, BVM

Webinar Snapshots

Webinar 1
State-of-the-art Technology: Super Cell in Bi-Directional Pile Test
By
Er. Snehal Patel
MD, Satt Engineering, Canada

Webinar 2
Post COVID Solid Waste Management Practices
By
Dr. Harshul Parekh
MD, Facile Maven Pvt. Ltd, Surat

Webinar 3
Triple Constraints in Project Management
By
Er. Jigar Shah
Director, PM Expert

Webinar 4
BIM & its Application
By
Mr Kushal Shah
Expert, Khodiyar CAD Center

Webinar 5
Advanced Technique for Monitoring real time Cast-in-situ Concrete strength
By
Er. Ritul Shah
Post Tension Services India Pvt. Ltd., Vadodara

Webinar 1

State-of-the-art Technology: Super Cell in Bi-Directional Pile Test

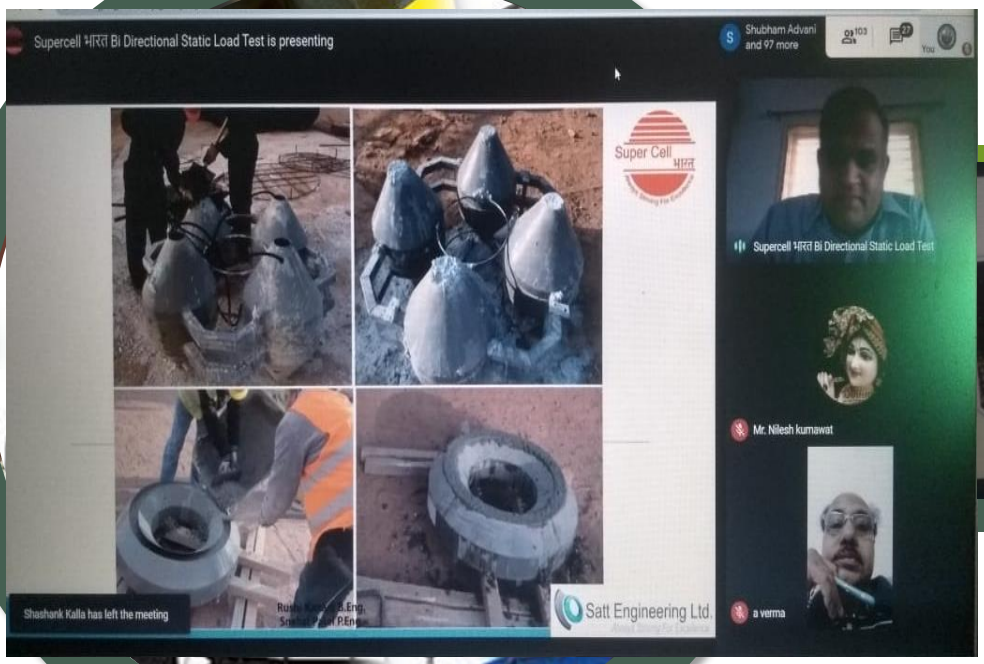
By

Er. Snehal Patel, MD, Satt Engineering, Canada

On 29th April , 2020

Total Participants: 100

Er. Snehal Patel explained about Bi-directional loading test, or otherwise named Osterberg test or O-cell test, for purpose to simplify and lessen the expenses for engineering consultants to test the static load of piles. Super Cells are the most important equipment used in the bi-directional static loading test process for producing loading force. They are developed by Super-Cell Technology in 2005 and patented, featuring reliability, loading precision, and cost-effectiveness. He also shown * planning on loading test * manufacturing of Super Cells * installation of Super Cells, telltales and strain gauges * data-collection on site and test result analysis on carrying capacity * distribution of load throughout the drilled shafts. Bi-directional loading test method for foundation pile testing with Super-Cell Super Cells is widely used among load test companies, engineering consultancies, project owners and contractors. By 2016, Super-Cell was able to contribute to the geotechnical industry by providing Super Cells and service to more than 2,000 bi-directional loading tests within short period.



BVM Engineering College is already established Center of Excellence in super cell technologies by Associating with Satt Engineering, Canada under which many Projects are under progress.

Webinar 2

Post COVID Solid Waste Management Practices

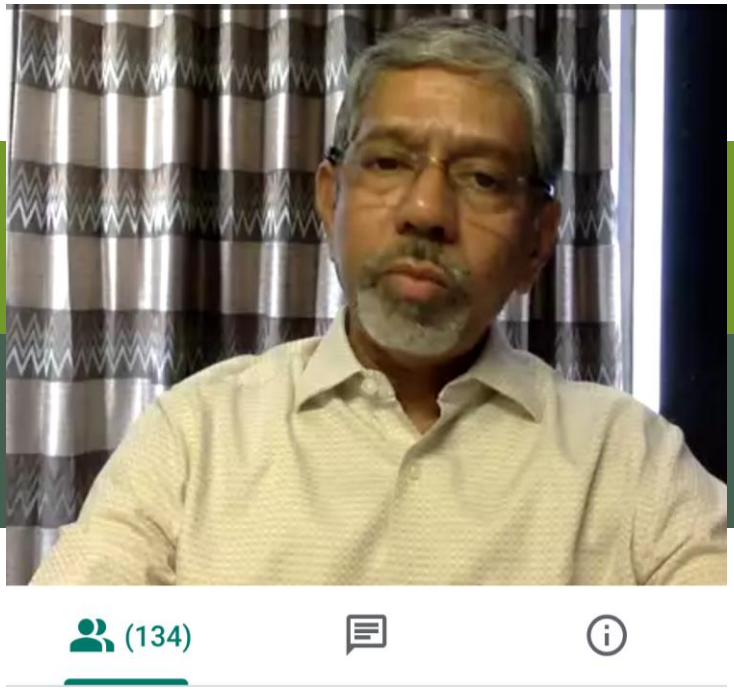
By

Dr. Harshul Parekh, MD, Facile Maven Pvt. Ltd, Surat

On 14th May, 2020

Total Participants: 146

The COVID-19 pandemic has already had tremendous impacts on the waste sector. At first, while the pandemic was progressing and lockdowns imposed in many countries, public authorities and municipal waste operators had to rapidly adapt their waste management systems and procedures to the situation. Dr. Harshul Parekh covered all the aspect of Waste Management system. He also briefed about Smart systems and different good practices going on across globe. He covered the treatment aspects also for the covid and general situation, He explained the role of citizens as well as authorities for the SWM system.



Webinar 3

Triple Constraints in Project Management

By

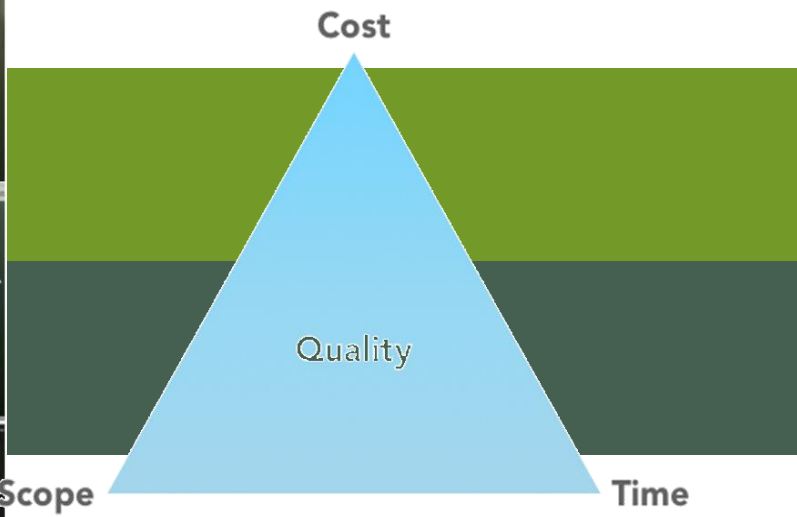
Er. Jigar Shah, Director, PM Expert

On 15th May, 2020

Total Participants: 124

All projects are carried out under certain constraints – traditionally, they are cost, time and scope. These three factors (commonly called 'the triple constraint') are represented as a triangle Each constraint forms the vertices, with quality as the central theme:

- ✓ Projects must be delivered within cost
- ✓ Projects must be delivered on time
- ✓ Projects must meet the agreed scope – no more, no less
- ✓ Projects must also meet customer quality requirements which was very well explained by Er. Jigar Shah.



Webinar 4

BIM & its Application

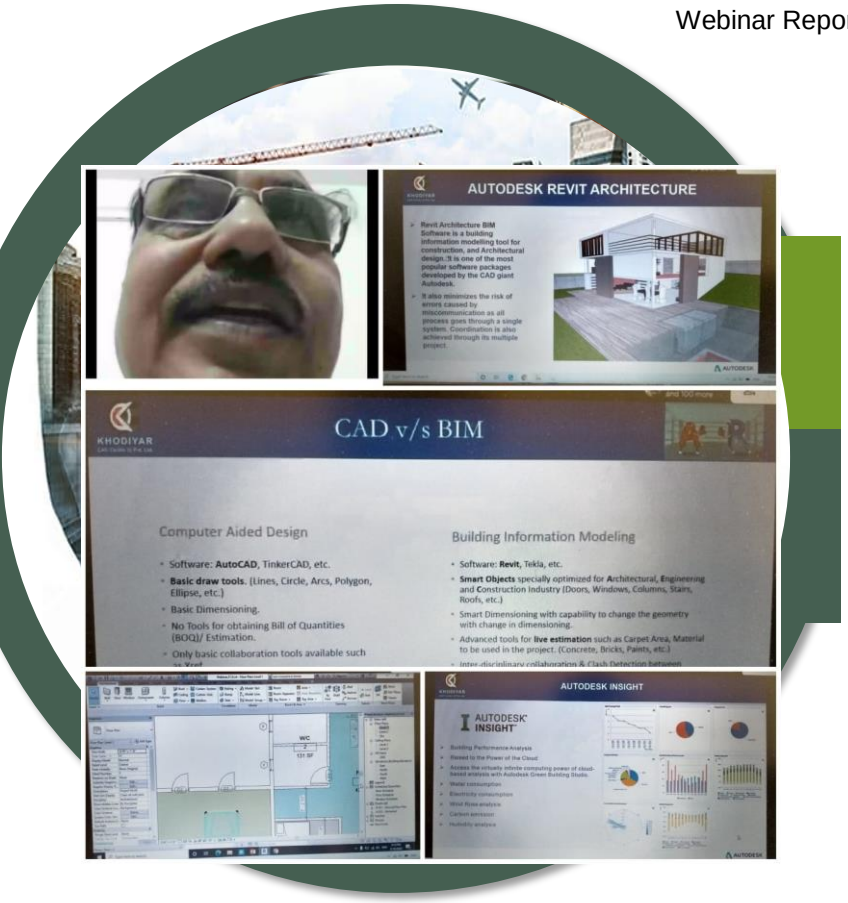
By

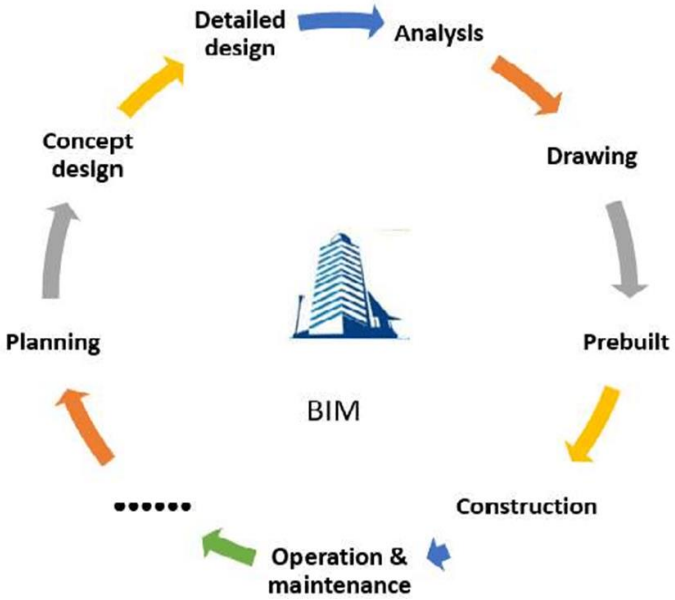
Mr. Kushal Shah, Expert, Khodiyar CAD Center

On 16th May, 2020

Total Participants: 114

Building Information Modeling is a collaborative process for the planning, design, construction and management of a building. It's the Idea of Exchanging Data using Standards. Ideally, the BIM process utilizes a centralized digital 3D model of the building (BIM model) as its core resource. Each construction participant contributes data to the model and has access to data created by others. At this stage, the BIM model consists of smaller components (BIM objects) such as doors, walls, equipment etc. Prototyping a project in BIM will help to increase efficiency at the planning stage as potential clashes on the building site are prevented. BIM objects make it quicker and easier for architects and designers to understand and implement door controls, automatics and other dormakaba products. After completion of the building, the information can serve the ultimate building owner or maintenance provider, as all products are clearly identifiable and indicate when service is required as presented by Mr. Kushal Shah





Webinar 6

Advanced Technique for Monitoring real time Cast-in-situ Concrete strength

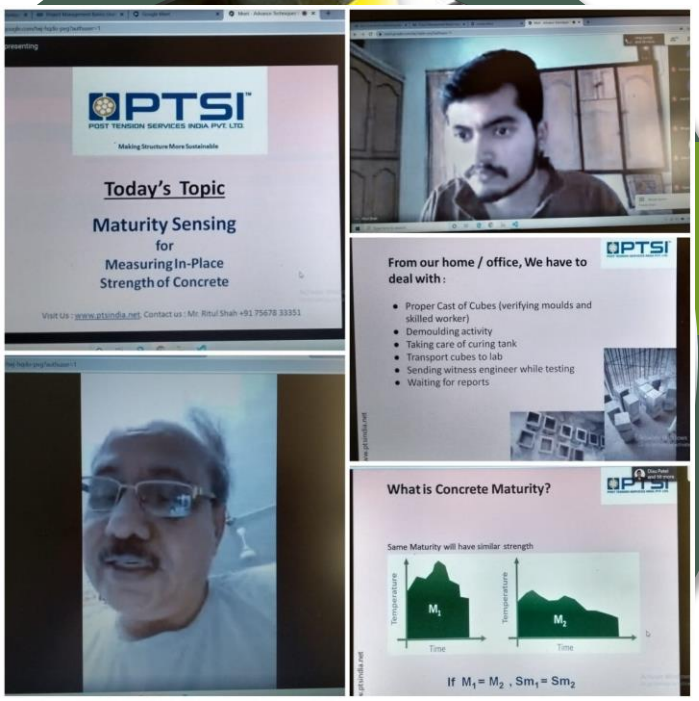
By

Er. Ritul Shah, Post Tension Services India Pvt. Ltd., Vadodara

On 20th May, 2020

Total Participants: 58

The estimation of the early age compressive strength of concrete is crucial for quality control in the construction industry. The webinar covered an innovative and cost-effective Internet of Things (IoT)-enabled system for the real-time monitoring of early age concrete strength. These differing methods do share several similarities, such as extensive laboratory time and sample prep, potential errors introduced by differences in field and laboratory conditions, and a general costliness. Maturity meter testing is fast and easy to perform on jobsites. The downsides are the upfront cost of building calibration profiles for all mix designs at all conceivable conditions, pH, temperature, temperature ramp profile for the cure time, %RH, and the fact that site conditions can never truly be anticipated. Er. Ritul explained all the benefits of the latest technology and its real world application along with case studies.



:Advisors:

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