

**DEC' 2020**



**Celebrating  
25 years  
of CEMCON**

# **CEMCON 2020**

**ADVANCES IN MATERIAL TESTING, INSTRUMENTATION & INFORMATION TECHNOLOGY  
IN CONSTRUCTION & MONITORING OF CONCRETE STRUCTURES**

**Indian Concrete Institute (Pune Centre)**

**Bridging Boundaries through Webinar platform**

**11<sup>th</sup>, 12<sup>th</sup>, 18<sup>th</sup> & 19<sup>th</sup> DEC 2020,  
5 PM to 8 PM IST**



# CEMCON 2020 “Digital Trends in Construction”

## ▶ Use of Drone Technology

- ▶ *Surveying, Geometry monitoring during Construction and Post construction*

## ▶ Testing of Materials

- ▶ *Assess the short term and long-term performance of construction materials in structure*

## ▶ Monitoring Large Scale Infrastructure projects using IT, IoT

- ▶ *Structural Health monitoring and assessment of large-scale infrastructure projects.*

## ▶ Monitoring of Underground Structures

- ▶ *Tunnel Monitoring , deflection, strain measurement, effect on other structures, subsidence*

## ▶ Monitoring of Nuclear Installations

- ▶ *Instrumentation for monitoring and measuring safety critical structural elements such as nuclear reactors, cooling systems etc.*

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# CEMCON 2020 “Sub Theme : Sessions”

## ► Use of Drone Technology (One Session)

The use of drones in surveying and geometry control of structures during construction and subsequent monitoring is gaining rapid acceptance in large infrastructure and building projects. The principles and methodologies which go into utilization of drones have been a subject of interest to many civil engineers.

## ► Testing of Materials (Two Sessions)

The increase in use of High Strength and High-Performance concrete demands special attention to testing materials and interpretation of test results. With the application of wide variety of materials and admixtures in concrete making, it has become more important to understand the specifications and new methods of testing the performance of concrete and its constituents under normal and deteriorating conditions. This sub-theme aims to focus on these testing methodologies and the adverse effects of non-compliance to specifications on the final product i.e. concrete.

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# CEMCON 2020 “Sub Theme : Sessions”

## ► Monitoring Large Scale Infrastructure projects using IT, IoT (Three Sessions)

At the simplest level, recurrent visual observation, and assessment of structural condition (cracking, spalling and deformations) could be viewed as structural health monitoring. But with the complexities and spread inherent to large infrastructure projects, such simple methods face severe limitations. With the advent of technology it has become possible to deploy reliable means of acquiring, managing, integrating, and interpreting structural performance data for maximum useful information at a minimum cost. The latest technology helps in removing or supplementing the qualitative, subjective, and uncertain human element with precise, consistent, and reliable data acquisition techniques. The effectiveness of maintenance and inspection programmes is only as good as their timely ability to reveal problematic performance. Hence the move to supplement limited and intermittent inspection procedures by continuous, online, real-time, and automated systems is the need of the hour.

Structures such as (i) Tall Buildings, (ii) Bridges, (iii) Dams need well designed monitoring system to accomplish the purpose. BIM is the buzzword in today's construction scenario. It helps in resolving many complex intricacies at planning and execution level. It is now beyond 3D and goes to 4D and 5D and it saves time and reduce wastages. It helps in facility management in the future maintenance of concrete structures. It can help build forms of any shape using 3D printing. BIM helps in deciding positions of various sensors to help in monitoring of structures throughout its lifetime.

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# CEMCON 2020 “Sub Theme : Sessions”

## ► **Monitoring of Underground Structures (One Session)**

Tunnel monitoring is aimed at ensuring whether tunnel deformation is within limits in terms of stability and effects on or from adjacent structures. Hence, while stresses and strains may be measured, the emphasis is on deflections and vibrations. The monitoring of heritage and other structures in the vicinity of underground sites is a major concern. These ground surface monitoring exercises are temporary but feature all the technology of permanent monitoring systems. Surface and tunnel deflection monitoring employs wireless remote monitoring technology for data acquisition and transmission, with Internet access or text messaging to operators indicating threshold crossings of deflection and vibration parameters. With the large-scale construction of Metros in Tier I and Tier II cities of India, this has gained a special significance.

## ► **Monitoring of Nuclear Installations (1/2 Session)**

For the safety-critical structural components of nuclear reactors, instrumentation for measuring structural response is used to validate and calibrate designs during performance testing and contributes to the condition monitoring during normal operation. After any outage of the Reactor it needs to be freshly certified. During this process, the Examiner reports on results of inspections and tests during the outage, together with structural and other performance data from monitoring during pre-outage operation. This report forms part of the licensee's application to restart the reactor

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# CEMCON 2020 : Distinguished Speakers

The Eminent Speakers gracing CEMCON 2020 include;

**Dr. Nemy Banthia**

Professor, University of British Columbia, Canada  
Structural Health Monitoring

**Dr. Vidyadhar Limaye**

President, SHM Canada Consulting Limited, Canada  
Structural Health Monitoring - A Risk Management Tool  
for Infrastructure

**Prof Shailesh R Gandhi**

Director SVNIT Surat  
Deep Foundations and Instrumentation

**Dr. N Kumar Pitchumani**

Regional Director- AECOM India Pvt. Ltd. Chennai  
Monitoring of Tunnels and Surrounding Structures  
during tunnelling operations in urban areas

**Dr Manoj Verman**

Director, Rock Sciences  
Monitoring of Vehicular Tunnels during Construction & In  
Service

**Mr Karun Raj Singh Sareen**

Director KPMG India  
Life cycle costs of PPP/BOT projects and efficacy of installing  
monitoring systems to optimize their maintenance costs by timely  
Interventions

**Mr Shashank Vaidya**

Director Gem Engserv Pvt. Ltd.  
A Perspective about NDT of Concrete and its  
limitations

**Mr Aniruddha Shidhore**

Director, PN Shidhore Civil Engineers (I) Pvt. Ltd., Mumbai  
Drone Technology for Surveys and monitoring

**Mr Ashish Gharpure**

MD, GENSTRU Consultants Pct. Ltd., Pune  
Drone Survey for Slope Monitoring with Site Observations and  
Geotech & Geophysical Techniques.

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# CEMCON 2020 : Organising Committee



## CONVENER

### **Er. S D Limaye**

Shri Shashikant D. Limaye with 47 years of Industry experience, is one of India's finest icons of Engineering Integrity.

AN IIT Mumbai Alumnus, He was associated with Planning and Design of Konkan Railway Project' and formerly 'Officer on Special Duty Pune Metro Rail Project'

He is a Consulting Engineer for Bridges, Tunnels, Railways, ,etc and on the board of various committees and forums.



## CO-CONVENER

### **Er. Mangesh Hardas**

Shri Mangesh Hardas is an IIT Roorkee Alumnus with more than two decades of vast experience in the field of Structural and Engineering Consultancy, Project management and Precast Solutions.

He is passionate about precast Concrete Technology and strives to bring in cutting edge structural technologies to Construction

He is Director at Precision Precast Solutions Private Limited.

## MEMBERS OF THE ORGANIZING COMMITTEE

Dr N B Chaphalkar

Dr J D Bapat

Er. Ramesh Kulkarni

Er. Vijay Kulkarni

Er. Ujwal Kunte

Mr. Prasad Sevekari

Er. Suneel Kulkarni

Er. Jayant Khode

Er. Dhairyashil Khairepatil

Er. Chitra Gorhe

Er. Mukul Dehadrai

Ar. Arun Karnik

Er. Appasaheb Bhosale

Er. Amit Haridas

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Er. Sucheta Kalawar

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# CEMCON 2020 : Sponsorship Opportunities

We have been supported well by Industry for our Technical events and we request same patronage for this year's CEMCON.

We have following categories for sponsors

Categories	Patron	Platinum	Gold	Exhibitor	Supporter
Number	1	2	4	30	No Limit
Free Delegates	50	30	20	2	-----
Exhibition Stall	Available	Available	Available	Available	-----
Presentation Slots	10 min x 2	10 min x 1	5 min (Pre-recorded Video)	In Exhibition stall only	-----
Fees (GST extra as applicable)	₹500,000	₹300,000	₹200,000	₹20,000	₹10,000

For further information write to : [cemcon@icipunecentre.org](mailto:cemcon@icipunecentre.org)

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# CEMCON 2020 : Delegate Categories

Construction Professionals and students who wish to attend CEMCON'2020 can register themselves as per the following categories:

Categories	Student*	ICI Members	Non ICI Members	Foreign Delegates
Fees (₹) (GST extra as applicable)	500	1000	1500	2500
Early Bird Fees (₹) (GST extra as applicable)	400	800	1200	2000

- ❖ Delegate Registrations will start from 15<sup>th</sup> Oct'2020. The information will be available on our website [www.cemcon.icipunecentre.org](http://www.cemcon.icipunecentre.org)
- ❖ Early Bird Discount Applicable for Registrations till 15<sup>th</sup> Nov'2020

Notes:

*\* Only Full time Diploma and Degree Students only. "Student Category" will be mentioned on the e-certificate*

For further information write to us at: [cemcon@icipunecentre.org](mailto:cemcon@icipunecentre.org)

Chat with us to know more

Click Here!



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# Past Events

## Indian Concrete Institute (Pune Centre)

Few large events from last couple of years





# CEMCON DEC' 2018

CEMCON 2018 was another event which had some of the experienced professionals sharing their knowledge and experience with well over 600 attendees. The event was a great success for ICI Pune Centre and set the tone for many future programmes organised by the centre.





# Statue of Unity

MAY' 2019

The “Iron Man of India”, Sardar Patel, has been brought back to life, in the World’s tallest Statue, the “Statue of Unity” constructed by L&T.

Ar. Gopinath (Chief Architect, L&T) and Er. Mukesh Rawal (Project Director, L&T) mesmerised audience while taking them through a journey of how the “Statue of Unity” became “Concept to Reality”  
This was a session which was not to be missed!





# Future of Concrete

SEP'2019



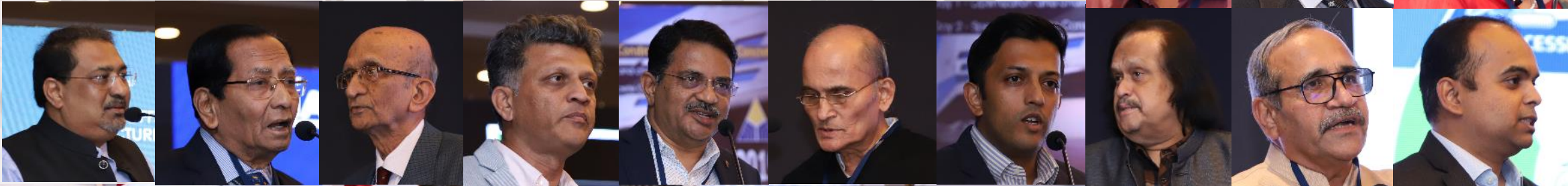
Indian Concrete Institute honoured Professor M. S. Shetty on his 90<sup>th</sup> Birthday by arranging an event titled “Future of Concrete”. The event was graced by well-known experts, researchers from the world, who share their expertise with a large audience. The event was well appreciated and attended by Technocrats from around India and abroad





# CEMCON DEC' 2019

CEMCON 2019 was another star-studded event where we had renowned speakers with great practical experience  
The two-day event was well appreciated by around 500 Delegates, who attended the program





# CONTACT US:

To know more on how you can be a part of CEMCON 2020,

[cemcon@icipunecentre.org](mailto:cemcon@icipunecentre.org)  
[icipunecentre@gmail.com](mailto:icipunecentre@gmail.com)

Or Call / WhatsApp  
+91-8669988901  
+91-80105 51942

ICI Pune Centre,  
C/o CQRA, 'Vimal' 84, 1,  
Prabhat Rd, Erandwane, Pune,  
Maharashtra – 411004  
India

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