



## SRI VENKATESWARA COLLEGE OF ENGINEERING

(an Autonomous Institution affiliated to Anna University, Chennai)  
Pennalur, Sriperumbudur Tk - 602117



Indian Concrete Institute



### DEPARTMENT OF CIVIL ENGINEERING

#### Report of Webinar on “Basics of Precast Construction and Technology”

Date : Monday, 8 June 2020

Time : 4:00 pm - 5:00 pm

Mode : Online through Cisco Webex

Meeting Link: Meeting URL: [meetingsapac17.webex.com](https://meetingsapac17.webex.com)

Meeting number: 1665021203

Meeting password: W6BKEydv

#### Speakers

##### Mr. Vaibhav Singhal

Vice President – Structural Design

Elematic India Pvt. Ltd., New Delhi

##### Mr. Shridhar Rao

Vice President – Sales and Marketing

Elematic India Pvt. Ltd., New Delhi

#### Convenor & Organising Secretary

Dr.R.Kumutha, Professor & Head/Civil Engg.

#### Coordinator

Ms.Ruby Freya, Assistant Professor/ Civil Engg

**Target Audience** : Students , Faculty members and Industry Personnel

Number of Participants benefited: 76 ( 20 internal and 56 external)

UG Students : 39

PG Students : 2

Faculty : 34

Industry : 1

**Number of Participants submitted feedback : 74 (19 internal and 55 external)**

UG Students : 37

PG Students : 2

Faculty : 35

BROCHURE



**SRI VENKATESWARA COLLEGE OF ENGINEERING**

Sriperumbudur, Tamilnadu

Department of Civil Engineering  
cordially invites you for a



**Webinar on  
Basics of Precast  
Construction and  
Technology**

Date: 08.06.2020

Time: 4:00 - 5:00 PM

Join Us



**Precast building  
structures**



Mr. Vaibhav Singhal  
Vice President – Structural Design

**SEMI Precast Technology  
– Start up concept**



Mr. Shridhar Rao  
Vice President – Sales & Marketing

**Elematic India Pvt. Ltd., New Delhi**

Register @ <https://forms.gle/h5fFJn1GmZdjfLtv5>



**Ms. Ruby Freya, AP / Civil  
Coordinator**

**Dr. R. Kumutha, HoD/Civil  
Convenor & Organising Secretary**

## PROFILE OF THE COMPANY AND SPEAKER

### Company Profile

Elematic is a leading one-stop-supplier for precast concrete technology. They work in over 100 countries on six continents.

**Elematic India Private Limited**, a daughter company of Elematic Oyj, has its offices located in New Delhi and Pune. The company with 45 employees offers precast machinery and related structural design services mainly needed in fast growing precast market of India.

Elematic India has the needed knowledge and experience of the local building requirements and provides wide range of precast services for local needs.

- Supply Precast Machinery
- Concept Design Study
- Structural Engineering Services
- Precast Plant Design
- Precast Plant Setup / Maintenance
- Production Training / Supervision
- Installation Training / Supervision
- Rebar Automation / Precast Accessories
- Architectural / MEP Services

### Speaker Profile

**Mr. Vaibhav Singhal**, is a Civil Engineering graduate from IIT Kanpur. He is having more than 12 years of rich experience in structural engineering for buildings and in Building Information Modelling (BIM). He has designed various type of precast structures; villa, residential, commercial, office buildings and cast in-situ high-rise buildings. He has spearheaded the large scale BIM projects, covering various design stages from concept design to construction stage. As a Vice President – Design, Elematic India, he is heading the building design team, who provide structural engineering and complete BIM solution to customers globally

**Mr. Shridhar Rao**, Mechanical Engineer and MBA graduate is with Elematic since 2014 and has 6 years of exposure to the Precast Industry adding to his 29 years in B2B sales. He has got Professional Exposure in India and Abroad

## BRIEF REPORT OF THE WEBINAR

The webinar started with a welcome note and the introduction of the speaker to the Participants by Dr.R.Kumutha, Professor & Head/ Civil Engineering, who is the Convenor and Organizing Secretary of this Program.

**Mr. Vaibhav Singhal**, Vice President - Design, Elematic India briefed about the basics of precast concrete, the different element types possible and their connections in a structure. He also highlighted the importance of Building Information Modeling for a project.

**Mr. Shridhar Rao**, Vice President – Sales and Marketing, Elematic India, highlighted the various services and solutions provided by the Elematic India. He explained the various technologies in Precast element production and installation. The equipments used also were demonstrated with videos. Precast is a smart, industrialized way to build any type of high quality, energy-efficient building not only in a short time frame but also cost-efficiently and safely. Precast refers to the work from a site for the controlled processes of a factory which supplies constant high quality and significantly improves productivity to the site.

The student and faculty participants from host as well as other institutions participated in the webinar. The session was interactive and the following questions were raised by the participants that were answered by the speaker.

1. Does pre cast construction offer solutions for low cost residential buildings?
2. For residential building, completely adopting precast elements instead of brick and cement blocks is economical or not? if yes, at what fraction will it be economic?
3. Since the number of joints or connections between the structural elements are constantly very high, by making this do we make our structure more prone to seismic loads?
4. Is there any testing done in manufacturing site for precast elements?
5. Is the precast building having high durability when compared to normal buildings?
6. What are the disadvantages of structures made up of precast elements?
7. Whether precast is costlier in production for residential building?
8. Can we make modifications on a precast wall? Like cut open a small area on the wall to insert a window and does it affect the strength of the wall significantly?

The session ended with a vote of thanks delivered by Ms. Ruby Freya, Assistant Professor/ Civil Engineering. The participants also had appreciated the webinar being well organized with good content.

# SNAPSHOTS DURING THE WEBINAR

**ELEMATIC FACTS IN BRIEF**

- Founded 1959
- Head office: Akaa, Finland
- 3 production units: Finland, India
- Customer service centers: UAE (Dubai), Finland and USA.
- Subsidiaries and sales offices: UAE (Dubai), USA, Germany, Hong Kong, Russia, India, China.
- Representatives: in over 50 countries

Over 4000 deliveries worldwide to more than 100 countries

Number of Elematic precast technology customers

**Building Information Model ( BIM )**

The diagram illustrates the BIM process flow. It shows a central 3D model of a building structure. Surrounding the model are icons representing different stakeholders: Precast manufacturer, Steel fabricator, Engineer, Detailer, Architect, General contractor, and Owner. Arrows indicate the flow of information and collaboration between these roles throughout the project lifecycle.

**Precast Structural System**

- Portal frame systems
- Skeletal structures
- Wall frame structures

The slide features three diagrams illustrating different precast structural systems:

- Portal frame system:** Shows a structure with roof beams, columns, and facades. It is noted as suitable for industrial buildings and warehouses.
- Skeletal system:** Shows a structure with floors, beams, columns, and facades. It is noted as suitable for offices, commercial buildings, and car parks.
- Wall frame system:** Shows a structure with floors, roof, facades, and walls. It is noted as suitable for houses and apartment buildings.

At the bottom of the slide, there is a video player showing a man speaking, with a camera icon on the right side.

**ACOTEC – A UNIQUE SOLUTION for Internal Partition walls**

- Non-load bearing, Holow core high-quality partition wall
- Building work proceeds up to 6 times faster when compared with traditional brickwork.
- The panels have exact dimensions and completely flat surface meaning that **no plastering is needed.**
- Thin structure more carpet area

The photograph shows two construction workers in safety gear installing large, grey, rectangular panels of ACOTEC internal partition walls in a room. The walls are being set up around a window area. The floor is covered with a blue protective sheet.

clideo.com

## LIST OF PARTICIPANTS

S.No.	Name	Name of the institution	Category
1.	Perla Mounika	Pallavi Engineering College	Faculty
2.	Janani J	SSN College of Engineering	UG Student
3.	M.Balakrishnan	P.A.College of engineering and technology	UG Student
4.	Alan P	St.Josephs clg of Engineering	UG Student
5.	Banupriya R	Sethu Institute of Technology	Faculty
6.	Dr.S.Thenmozhi	St.Joseph's Institute of Technology	Faculty
7.	Er.R.Rvinodhkumar	Meenakshi college of engineering	Faculty
8.	B N Brinila Bright	Mohamed Sathak AJ College of Engineering	Faculty
9.	B. Srinivasan	Sri Lakshmi Ammal Engineering College, Chennai	UG Student
10.	Arun G.	Sri Venkateshwara college of engineering	Faculty
11.	Jenisha Efrance	Sri Venkateshwara college of engineering	UG Student
12.	Ajay Dhankumar	St.Joseph's College of Engineering	UG Student
13.	Hariswaran S	Sri Venkateshwara college of engineering	Faculty
14.	Akil Kannan	Hindusthan college of Engineering and Technology	Faculty
15.	Sangeetha	Kamaraj college of engineering and technology	UG Student
16.	A.Jeeva	K S Rangasamy College of Technology	UG Student
17.	Sankaranarayanan J	Sri Venkateshwara college of engineering	UG Student
18.	Akriithak	Sri Venkateshwara college of engineering	UG Student
19.	Jotheshwaran	Sri Venkateshwara college of engineering	UG Student
20.	Yahaya Hassan Labaran	Sharda University	PG Student
21.	Sridhar	St.Joseph's college of engineering	UG Student
22.	Kalaiselvi Nivedha J	P.A.College of Engineering and Technology	Faculty
23.	Hemalatha Raja	Sri Venkateshwara college of engineering	UG Student
24.	Brithisha	Sri Venkateshwara college of engineering	UG Student
25.	Yamni.R	Sri Venkateshwara college of engineering	UG Student
26.	S. Saravanakumar	P.A.College of Engineering and Technology	Faculty
27.	Vaishnavi	kamaraj college of engineering and technology	UG Student
28.	S.P.Kanniyappan	R.M.K Engineering College	Faculty
29.	T.Sidharth Saravanan	Sri Venkateshwara college of engineering	UG Student
30.	Ashokkumar K	Nehru Institute of Technology	Faculty
31.	Sanjay Kumar R	Aarupadai Veedu Institute of Technology, Chennai	Faculty
32.	Meera.S	PA college of engineering and technology	UG Student



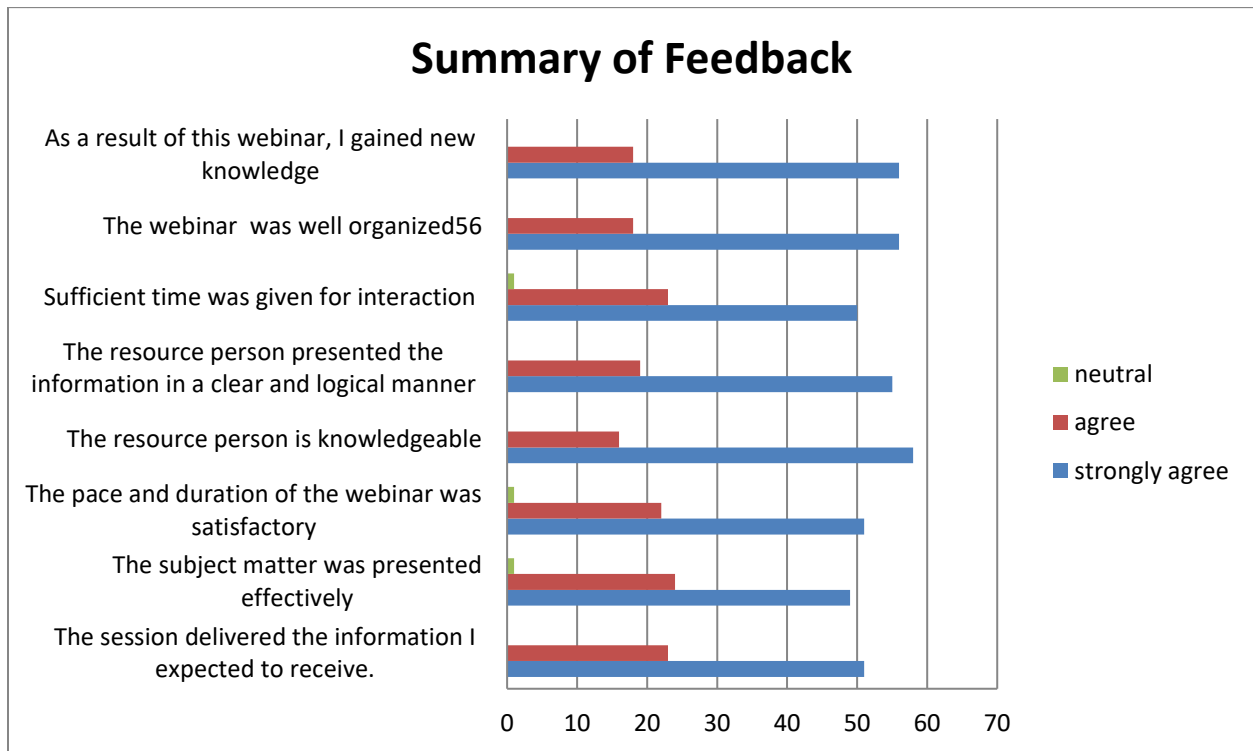
<b>S.No.</b>	<b>Name</b>	<b>Name of the institution</b>	<b>Category</b>
33.	Vijayaraghavan T	Peri Institute of Technology	Faculty
34.	Shivaa Shri Shanthini.M	P.A college of engineering and technology	UG Student
35.	Balamurugan	P.A.College of Engineering and Technology	Faculty
36.	A Thukkaiah	Pallavi Engineering College	Faculty
37.	Siddharth	Sri Venkateshwara college of engineering	UG Student
38.	Lakkaraju Mounika	Pallavi Engineering College	Faculty
39.	Mathiyazhagan	Sri Venkateshwara college of engineering	Faculty
40.	Goutham Priya M	Rajalakshmi Engineering College	Faculty
41.	Anees	Sri Venkateshwara college of engineering	UG Student
42.	Dr. A. Kumar	Jctcet cbe	Faculty
43.	A.Saranya	P.A College of Engineering and Technology	UG Student
44.	Vetrivel	St.Joseph's College of Engineering	UG Student
45.	Harshavarthani	Sri Venkateshwara college of engineering	UG Student
46.	Keerthana Pannerselvan	Bannari Amman institute of technology	UG Student
47.	Prawin	Sri Venkateshwara college of engineering	UG Student
48.	Laleeth Kumar	Sri Venkateshwara college of engineering	UG Student
49.	Vijaya Bhoopathy	Dr.M.G.R.Educational and Research Institute	Faculty
50.	Vishnu Prasath	P.A.College of Engineering and Technology	UG Student
51.	Richin_John	Sri Venkateswara college of engineering	UG Student
52.	Saii Prasanna	Pa College of Engineering and Technology	UG Student
53.	Hariharan.V	Sri Venkateshwara college of engineering	UG Student
54.	Sibi R	Coimbatore Institute of Engineering and Technology	Faculty
55.	Deepa.B	Kamaraj College of Engineering and Technology	Faculty
56.	Anitha	ELEMATIC	Industry
57.	Avinash R	Hindusthan College of engineering and technology, Coimbatore.	UG Student
58.	Sangeetha	Kamaraj College of Engineering and Technology Madurai	UG Student
59.	Vijai K	St.Joseph's College of Engineering	Faculty
60.	Mr P.Vinodhkumar	Meenakshi College of Engineering	Faculty
61.	Pradeep Kumar S	R.M.K Engineering College	Faculty
62.	V Gayathri Devi	Anna University	PG Student
63.	Dhiviyanthan	ST.Joseph's College of Engineering	UG Student
64.	Gowtham	Sri Venkateshwara college of engineering	UG Student
65.	P.Ranjitha	P.A college of engineering and technology	Faculty

<b>S.No.</b>	<b>Name</b>	<b>Name of the institution</b>	<b>Category</b>
66.	M. Jenani	Sri Venkateshwara college of engineering	UG Student
67.	Minu	Jeppiaar SRR Engineering College	Faculty
68.	Lija R L	Jeppiaar SRR Engineering College	Faculty
69.	Shankar.R	KONGU ENGINEERING COLLEGE	UG Student
70.	Hari Haran	Vels institution	UG Student
71.	Senthil Kumar S.P	St.Joseph's College of Engineering,OMR,CHENNAI	Faculty
72.	Vijaya Keerthana	Kamaraj college of Engineering &Technology, Madurai	Faculty
73.	Jashwanth Kumar	St Joseph's College of engineering	UG Student
74.	Shunmugam. M	Sethu Institute of technology	Faculty
75.	Regupathi R.	Govt. College of Engineering Bodinayakanur	Faculty
76.	Revathi M P	Coimbatore Institute of Engineering and Technology	Faculty



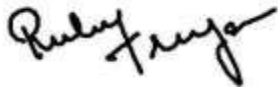
## SUMMARY OF FEEDBACK

Total Number of respondents:74				
Feedback	Strongly Agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive	51	23	-	-
The subject matter was presented effectively	49	24	1	-
The pace and duration of the webinar was satisfactory	51	22	1	-
The resource person is knowledgeable	58	16	-	-
The resource person presented the information in a clear and logical manner	55	19	-	-
Sufficient time was given for interaction	50	23	1	-
The webinar was well organized	56	18	-	-
As a result of this webinar, I gained new knowledge	56	18	-	-



**Additional comments/feedback from participants:**

- It was a very useful and informative session.
- It was well organised.
- Presentations could be shared.
- Expecting webinars in all different disciplines.



Prepared By

**Ms.Ruby Freya (AP/Civil Engg.)**  
**Coordinator**



Approved By

**Dr.R.Kumutha(HoD/Civil Engg.)**  
**Convenor & Organising secretary**