



# Government Polytechnic, Valsad

## Civil Engineering Department




27 OCTOBER, 2021

### **Expert Lecture : Various Strengthening methods of RC Columns**


An Expert was organized by Ku.Aditi Shah (Lecturer, Civil Engineering Department) on date: 27/10/2021. Prof. Maynak A Patel (Assistant Professor in Dr S&SS Gandhi GEC, Surat) was invited to speak about Topic: "Various Strengthening method of RC Columns".

**Government Polytechnic Valsad**  
**Civil Engineering Department**



**Expert Lecture on: "Various strengthening methods of RC columns"**


**Expert Speaker:**



Shri Mayank A Patel  
Assistant Professor  
Dr S & S S Gandhi GEC,  
Surat.

**Principal:**  
Shri C H Bhatt

**Organized By:**  
Shri S D Kakwani  
(HOD, CED, GPV)  
Kum A K Shah  
(LCED, GPV)

On 27th October 2021 Wednesday at 11:30 AM; Through MS Team 

Link:- <https://rb.gy/tkrap0>

Microsoft Teams Meeting Interface (Top View):

- Browser Tabs:** WhatsApp, My Drive - Google Drive, RESEARCH PROPOSAL PRESENTA..., Expert Lecture (Shri Mayank Patel), Meeting options.
- Meeting URL:** teams.microsoft.com/join?culture=en-in&country=IN&tm=deeplink&tmsrc=homePageWeb&cmid=WebSignIn#/pre-join-calling/19:Tz12ZXodOxkr1JEH1wOqKp7sDM8CUdp8PIG7Svmg1@thread.tacv2
- Participants:** A grid of 20 participants, including aditi shah, CE2B3-206290306117, CE2A3-206290306057, CE2A1-206290306014, CE2A2-206290306027, hirenkumar misty, CE2A2-206290306035, CE2B1-206290306066, CE2B1-206290306095, CE2A1-206290306011, CE2A3-206290306065, CE2A1-206290306021, CE2A1-206290306008, CE2B2-206290306108, CE2B2-206290306107, CE2A3-206290306055, CE2A1-206290306005.
- Time:** 01:20:38
- System Tray:** Windows search, taskbar icons, 34°C Haze, 12:34 PM, 10/27/2021.

Microsoft Teams Meeting Interface (Bottom View):

- Browser Tabs:** WhatsApp, My Drive - Google Drive, RESEARCH PROPOSAL PRESENTA..., Expert Lecture (Shri Mayank Patel), Meeting options.
- Meeting URL:** teams.microsoft.com/join?culture=en-in&country=IN&tm=deeplink&tmsrc=homePageWeb&cmid=WebSignIn#/pre-join-calling/19:Tz12ZXodOxkr1JEH1wOqKp7sDM8CUdp8PIG7Svmg1@thread.tacv2
- Slide Title:** Field Application of FRP (Setunge et al. 2002)
- Slide Content:**
  - Four photographs showing FRP application on concrete structures:
    - (Slab): Workers applying FRP to a ceiling slab.
    - (beam): Workers applying FRP to a structural beam.
    - (columns): Workers applying FRP to concrete columns.
    - A close-up of FRP sheets being applied to a curved surface.
  - Caption: "various strengthening methods of RC columns"
- Meeting Chat:**
  - Monday 16:55: Scheduled a meeting
  - Expert Lecture (Shri Mayank Patel) - Wednesday, 27 October...
  - 12:07: Dear Students. Any questions or doubts can be written here. At the end of the session we our expert will answer them.
  - 12:07: At the end of the session you also have to fill the feedback form
  - This message has been deleted. Undo
  - 12:08: <https://forms.office.com/r/QZFCJCKu8U>
- System Tray:** Windows search, taskbar icons, 34°C Haze, 12:23 PM, 10/27/2021.

Microsoft Teams Meeting Interface (Screenshot 1)

**Introduction**

**Why Strengthening is Required**

Service Stages

- Overloading
- Change of use
- Upgrading
- Earthquake / seismic Forces
- Lack of maintenance
- Concrete deterioration

Construction Errors

Errors in designing stages

48:34

Mayank Patel

"various strengthening methods of RC columns"

People

- Invite someone
- Share invite
- Presenters (2)
- Mute all
- Attendees (78)
- CE2B2-206290306107
- CE2B2-206290306108
- CE2B3-206290306112
- CE2B3-206290306114
- CE2B3-206290306117
- CE2B3-206290306119
- CE2B3-206290306134
- CE2B3-196290306551
- LOKESH PATEL (Guest)
- Others invited (4)
- Suggestions (3)

Windows Taskbar: 33°C Haze, 12:02 PM 10/27/2021

Microsoft Teams Meeting Interface (Screenshot 2)

Your status is set to do not disturb. You'll only get notifications for urgent messages and from your priority contacts. [Change settings](#)

01:24:05

teams.microsoft.com is sharing your screen. [Stop sharing](#) [Hide](#)

People

- Invite someone
- Share invite
- Presenters (2)
- Mute all
- Attendees (76)
- CE2A2-206290306042
- CE2A2-206290306043
- CE2A3-206290306047
- CE2A3-206290306051
- CE2A3-206290306052
- CE2A3-206290306054
- CE2A3-206290306055
- CE2A3-206290306057
- Others invited (3)
- Suggestions (3)

Windows Taskbar: 35°C Haze, 12:37 PM 10/27/2021

**Advantage & Disadvantage of FRP**

Advantages	Disadvantages
<ul style="list-style-type: none"><li>➤ It is lightweight</li><li>➤ It has high strength</li><li>➤ It has high modulus of elasticity</li><li>➤ It has high resistance to fatigue failure</li><li>➤ It has good resistance to corrosion</li></ul>	<ul style="list-style-type: none"><li>➤ The manufacturing and testing of FRP components is highly specialized</li><li>➤ The design of components made from FRP is complex</li><li>➤ Its application is limited to a temperature below 300-</li></ul>

Meeting chat

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Scheduled a meeting

Expert Lecture (Sh...  
Wednesday, 27 Octob...

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12:08  
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Reply

**EXPERT LECTURE** :Various Strengthening methods of RC Columns  
(27/10/2021.)