

One-day ICI-IMPRINT seminar on Structural and Durability Performance of Post-Tensioned Bridges and Buildings



8 to 5 PM | Friday, April 12, 2019 | IC&SR building, IIT Madras, Chennai

About the Seminar

Now-a-days, the grouted, post-tensioned (PT) concrete systems are widely used in bridges, silos, and high-rise buildings, etc. Some of these structures are expected to have a corrosion-free service life of 100+ years. However, poor tendon profile/systems, grout materials, and grouting practices can result in voids inside the ducts, which in turn can lead to the ingress of moisture, chlorides, and carbon dioxide. Premature corrosion and failure of strands due to such scenarios have been observed in many PT structures less than two decades old. In India, more than 90% of PT structures are less than a decade old (very young). The long-term quality may not be assessed based on the performance of such very young structures. If poor design and construction practices continue, the industry will be forced to invest huge amount of money, time, and effort in maintaining PT structures to meet their desired corrosion-free service life of 100+ years. This seminar intends to educate the stakeholders on good design and construction practices and sensitize the huge consequences of not implementing them on the long-term performance of PT structures. Also, case studies exhibiting poor performance of PT systems (both in India and abroad) and how the industry overcome such situations and advanced the design and construction practices worldwide will be discussed. Both the practical and research viewpoints will be discussed.



Severe corrosion of strands within about two decades; Good grouting can prevent this.



Use of segments with damaged shear keys is not a good practice.

Who should attend

- Structural designers and Consultants
- Civil Engineering Faculty and Scientists
- Construction managers, Builders, and Site engineers
- Senior UG students, PG students, and Research scholars

Program schedule

Time	Topic	Speaker
08:00 – 08:45	Registration & Lucky draw	
09:00 – 10:00	Grouting of PT systems: Past, present, and future	Er. Vinay Gupta, Tandon Consultants, New Delhi
10:00 – 10:45	Corrosion prevention and good grouting practices	Dr. Radhakrishna G. Pillai, IIT Madras, Chennai
10:45 – 11:15	Tea/Coffee Break	
11:15 – 12:00	Evolution & current practices for PT bridge design	Dr. P.G. Venkatram, L&T-Infra. Engg., Chennai
12:00 – 12:45	Evolution & current practices for PT building design	Dr. Asit N. Baxi, Baxi Engg. Inc., Houston, USA
12:45 – 01:45	Lunch break	
01:45 – 02:30	Construction of PT buildings – Dos & don'ts: Case studies	Dr. Asit N. Baxi, Baxi Engg. Inc., Houston, USA
02:30 – 03:00	Grouting of PT systems – challenges and needs	Mr. K. Kamalakannan, Utracon, Chennai
03:00 – 03:15	Presentation by Ultratech Cement Limited	Dr. Manamohan Kalgall
03:15 – 03:45	Tea/coffee break	
03:45 – 04:00	Presentations by Fosroc	Mr. Shankar Kottur
04:00 – 04:45	PT systems in the viaducts of Chennai Metro Rail	Mr. M. Ramanathan, AECOM, Chennai
04:45 – 05:00	Closing & certificate distribution	

Registration Fee (including 18% GST)

- Students without stipend*: ₹1000
- Research scholars/Faculty* : ₹1500
- Practicing engineers/Research scientists : ₹5000
- *Institute ID Card proof is required

Supported by:



Pre-register at:

https://docs.google.com/forms/d/1S5ILZsFgipmrSHA6MLfy3_pOKP-HvXT1JhkZ6gfaAHA/edit

Mode of payment

Demand draft, Check, Net Banking, Online payments
Bank name: Canara bank, IIT Chennai
Account name: Indian Concrete Institute Tamil Nadu Centre
Account Number: 1550101009176 IFSC: CNRB0002722

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