REINFORCE

OFFLINE COURSE

BRIDGE MASTERY PROGRAM

A Complete Practical Training for
Bridge Construction Projects

- Quantity Surveying of Bridge
- Billing Engineering
- Rate Analysis
- Bar Bending Schedule
- Start to Finish Bridge Construction works
- BOQ (Bill of Quantity)

NEW BATCH
EVERY MONTH
1ST & 15TH

REINFORCE
Civil Engineers Training Institute

ISO 9001:2015 Training Certified

Actively Learning with Real Time Projects

Practical Learning Environment

Fees	Duration
₹25,500/-	3 Months

PLOT NO. B-8/1, GROUND FLOOR, WESTEND MARG, LANE NUMBER 2, SAIDULAJAB, NEW DELHI, DELHI 110030

About Us

Reinforce QST Private Limited is an ISO certified training Institute which was established in 2016 with a focus on providing students with practical knowledge and industry-relevant abilities in different Construction fields. We have dedicated ourselves to offering the best training programmes for ambitious professionals and trainees in the field of civil engineering since then.Reinforce QST recognises the value of hands-on experience in the discipline of civil engineering. Our training courses are created to bridge the gap between academic learning and practical application. We are pleased that many of our trainees/students /professionals were able to get work in reputable companies after completing our training courses.We have effectively benefited and empowered over 1 lakh trainees through different modes of training.Most of them are working in reputed companies at different superior designations across India.

Reinforce QST Private Limited institute has also provided training to a myriad of Construction Companies like Patel Engineering,DLF,L&T, etc. We have conducted more than 100 seminars and over 500 workshops in the field of Construction Industry in different colleges and construction companies across the country.

Vision

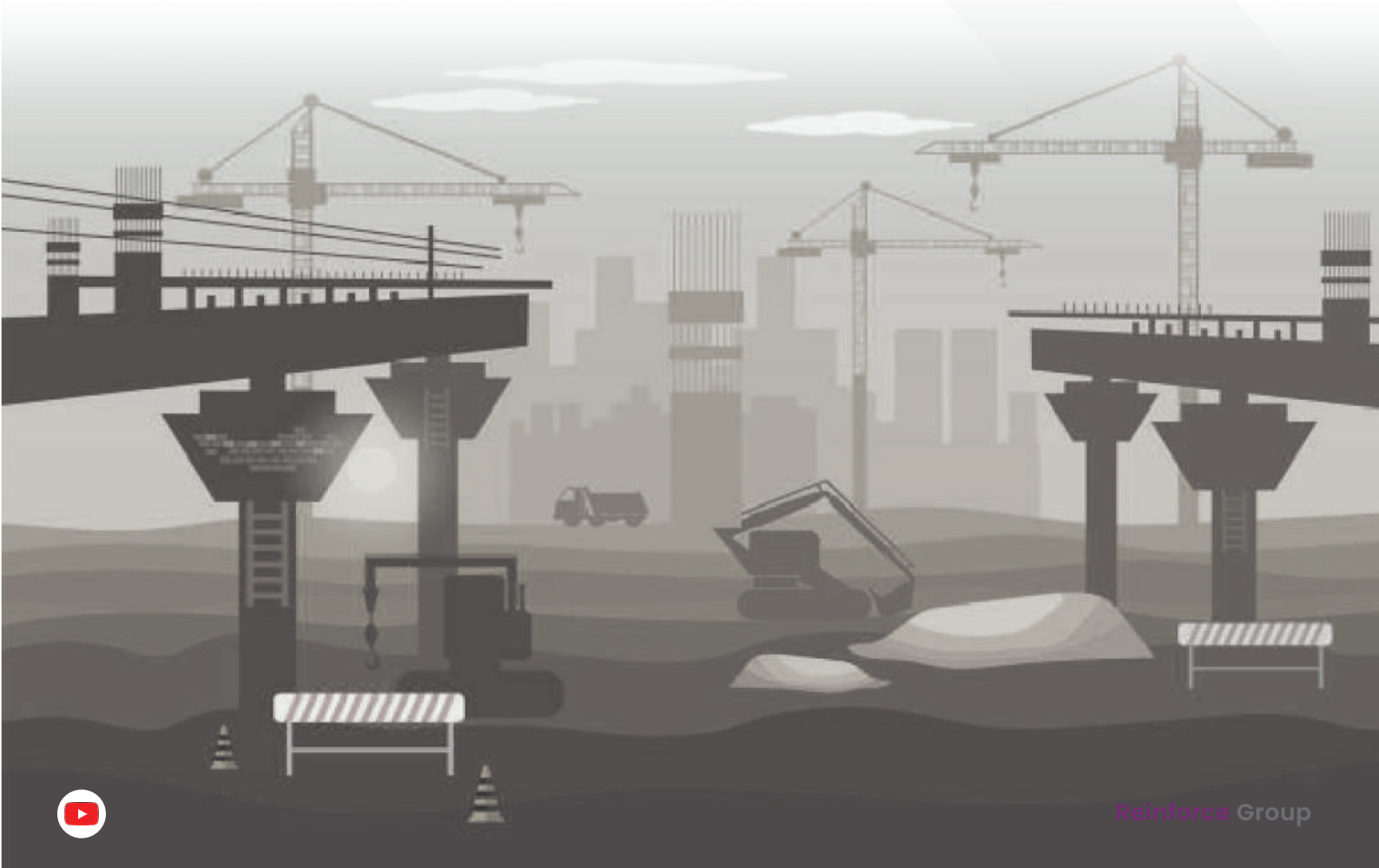
Our main objective is to train civil engineering students and civil engineer working professionals by providing them hands-on experience. Our main goal is to enable our professionals and trainees to secure profitable employment prospects. We work hard to provide training to students/work professionals/students of Civil Engineering as per Industry Norms and Regulations enabling them to acquire fulfilling work prospects and enhance employability. Having been in business for more than eight years, we have made a name for ourselves as a reliable and trustworthy training provider for the civil engineering sector. Every training session is enhanced by the depth of knowledge and useful insights provided by our staff of knowledgeable trainers and educators.

Professional Training Courses

Master the most in-demand skill of Construction Industry, Engineering & Achitecture and boost your career

Get trained from Industry Experts worked at

Shapoorji Pallonji · ALHABTOOR · Patel Since 1949 · L&T · DLF · AFCONS



Reinforce Group

Training Glimpses :

Provides Training In:

Buildings

1. Low Rise Building
2. Residential Building
3. Skyscraper
4. High Rise Building

Infrastructures

5. Highway Project
6. Metro Project
7. Bridge Project
8. Expressway

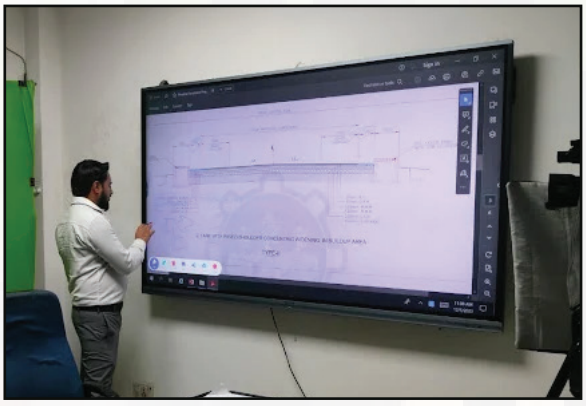
Commercial

9. Hospital
10. Shopping Mall
11. Pre - Engineering Building

Training Process

This is our tried and tested training process method that helps to provide you with noticeable improvements in efficiency and communication among employees with the practical skills as per construction demand.

On-site Training



In-Class Training

Assessment & Certification

Offline Training : Bridge Project

Fee : ₹ 25,500/- Only

Duration : 3 Months

Day 1

1) What is bridge & it's type

2) What is grade separated structure & it's type

Day 2

3) What is culvert & it's type & components

4) What is Minor bridge, it's type & components

Day 3

5) What is Major bridge, it's type & components

6) What is underpass, it's type & components

Day 4

7) What is flyover or overpass, it's type & components

8) What is ROB & RUB, it's type & components

9) What is foundation, substructure & superstructure in bridge and also grade separated structure & it's main components

10) Types of foundation used in bridge & grade separated structure

Day 5

11) Step by step standard process for the construction of bridge & grade separated structures with all the possible items and it's measurement with 3D animation

12) Types of drawing use in bridge project

13) Unit conversion

14) Introduction to the concrete and cement, sand, aggregate and water to cement ration (w/c) calculation.

Day 6 to 7

15) Case study on only one live project drawing

    a. Culvert

    b. Minor Bridge

    c. Major Bridge

16) Drawing reading of grade separated structure and all types of bridges by live project drawing

Day 8 to 9

17) Quantity Surveying of foundation work on Excel sheet

    a. Earthwork excavation for abutment, pier, return wall, wing wall, foundation & shear key

b. PCC work

c. RCC work of raft and pile foundation for abutment, pier, return wall & shear key

Day 10 to 11

18) Quantity Surveying of substructure work as per MORTH on excel sheet

a. RCC work of abutment shaft, pier shaft, abutment cap, pier cap, pedestal, return wall, wing wall

b. Quantity calculation of weep holes in abutment shaft, return & wing wall

c. Quantity calculation of filter media for abutment, return & wing wall

d. Quantity calculation of bearings

Day 12 to 13

19) Quantity surveying of superstructure work on excel sheet as per MORTH

a. RCC work of different type of main girder & cross girder, deck slab, approach slab, crash barrier, parapet wall

b. PCC work of Approach slab

c. Quantity calculation of drainage spout work

d. Quantity calculation of expansion joint

e. Quantity calculation of wearing coat

f. Quantity calculation of guard rail & hand rail

20) Quantity surveying of Protection work

a. Earthwork excavation for toe wall, curtain wall, floor & flexible apron.

b. Quantity calculation of floor & flexible apron

c. PCC work of Toe wall, curtain wall & floor apron

d. Quantity calculation of filter media

e. Quantity calculation of stone pitching

Day 14

21) What is BBS & why we do?

a. IS code used in BBS

b. Step by step procedure for BBS

c. What is favorable & unfavorable condition

d. What is overlapping length & how to find it

e. What is development length & how to find it

f. Different types of shapes of bar used in bridges, how to calculate it's cutting length

Day 15 to 18

22) BBS of foundation work of bridge on excel sheet

a. Raft foundation of abutment, pier, return wall

b. Pile foundation of abutment and pier

c. Shear key

Day 19 to 24

23) BBS of substructure work of bridge on excel sheet

a. Abutment Shaft

b. Pier Shaft

c. Return Wall

d. Abutment cap

e. Pier cap

f. Abutment & pier pedestal

g. Haunch

Day 25 to 33

24) BBS of superstructure on excel sheet

a. Main Longitudinal girder

b. End cross girder

c. Intermediate cross media

d. Deck slab

e. Approach slab

f. Crash Barrier

g. Bracket

h. PSC girder

Day 34

25) Preparation of measurement sheet of all the possible items of bridge project on excel sheet as per MORTH

Day 35

26) What is Rate Analysis, why we do it

27) What are the factor that affect the rate of items

Day 36 to 37

28) Rate analysis of all the items of foundation substructure & superstructure work

a. Earthwork Excavation

b. PCC work

c. RCC work

d. Steel reinforcement

e. Formwork

Day 38

29) Labor outputs and deployment analysis

Day 39 to 40

30) Different types of machinery & equipment uses and its out puts and deployment analysis.

31) BOQ preparation as per MORTH or SOR of different state on excel sheet

32) Discussion of interview question for Quantity surveyor

33) Resume making as per profiles of Quantity surveyor

Bridge Billing

Day 41 to 45

34) What is bridge construction bills

35) What is billing engineering & it's roles and responsibility

36) Standard procedure of bridge construction billing

37) Important contract terms & conditions of bridge

project

38) Analysis of different types of contract agreement and work order for bridge construction billing

39) What are different types of advance provided by client to contractor

40) What is price escalation and it's terms & condition for NHAI project

41) What is RFI, how to prepare it and it's format

42) Bridge billing on excel sheet

A. Preparation of Running Account bill

i) Measurement book

ii) Detail bill invoice abstract sheet

iii) Bill summary

iv) Mobilization advance recovery and it's interest calculation sheet

v) Price escalation sheet as per WPI of ministry of commerce & industry

43) Preparation of final bill

44) Preparation of sub-contractor bills on excel sheet

Certificate Sample

REINFORCE

Certificate

OF COMPLETION

Reg. No. : [redacted]

This is to certify that

RAVI SAINI

S/o - Gaurav Saini

on

08/03/2022

has successfully completed the Professional Certification Course

Quantity Surveying (Bridge Project)

Date of Issue : 10/03/2022

Skill India

Rahul Koli
(HR Admin)

Sandeep Singh
(Trainer)

Nishant Kumar
(Director)

REINFORCE QUANTITY SURVEYORS AND TRAINING PVT. LTD.

Phone No. : +919711155585 Email ID : info@reinforceqst.com CIN : U74999DL2016PTC305181

Verify the authenticity of the certificate at **www.reinforceqst.com** or Scan the **QR Code**

Thank You!

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