



Indian Association of Structural Engineers

ON-LINE REFRESHER COURSE ON

DESIGN & CONSTRUCTION OF STEEL BRIDGES

17th July, 2021 till 28th August, 2021

Every Saturday from 14:30 Hours to 18:30 Hours (IST)



ABOUT THE COURSE

The main objective of this course is to provide practicing engineers with an insight in the design & construction of steel bridges through state of the art understanding of material and structural behavior. This course is also helpful to graduate/post graduate students who are not well conversant with the practical aspect of design and construction of steel bridges. This course can be easily treated as an internship for the students. The topic covered include fundamentals of steel bridge design and construction including fabrication, erection, quality control, rehabilitation & repairing techniques, provisions of IRC/IRS codes. Also several case studies of plate girder, arch, truss, steel box girder and composite bridges have been covered.

The Faculty for this course are all eminent members from the industry, academia and R&D who are involved in research and actual design & construction of steel bridges

REGISTRATION FEE

IAStructE Members	: Rs 5,000/- + 18% GST
Non Members	: Rs 7,500/- + 18% GST
Students	: Rs 2,000/- + 18% GST
Foreign Nationals	: USD 100 or INR 7500/- + 18% GST

(Foreign nationals - 20% discount for members of MoU Associations)

Every five registration from one organization will entail one free registration from the same organization

(E-certificate of participation will be provided to those who will have 80% attendance)

SPONSORSHIP OPTION

ENTITLEMENTS	DIAMOND SPONSOR INR 3,00,000 + 18% GST*	SUPPORTER INR 1,00,000 + 18% GST*
Presentation Slot	15 mins.	N.A..
Advertisement in SED (Quarterly journal of IAStructE published as soft copy)	One Colour Page	One Colour Page
Logo in Poster & all related correspondence		
Company Profile to all delegates		

* Indian Sponsor can either pay GST @ 18% or settle through Reverse Charge Mechanism

HOW TO REGISTER

STEP 1 : Registration fee shall be paid through NEFT/RTGS/UPI as per bank details given below :

Beneficiary: Indian Association of Structural Engineers;
C. Account No.: 10151200388, IFSC:SBIN0007196
MICR: 110002034 ; Bank: State Bank of India(07196)
Branch Address: Flyover Market, Defence Colony, ND 110024

STEP 2: The details of the participant (Name, Designation, Organization, Email id, Mobile) along with the proof of the payment shall be sent to iastructe@gmail.com for registration. Students must send their valid student ID card (scanned) along with proof of payment. The registration link for webinar shall be sent prior to the every lecture to the confirmed participants.

Registration Link: <http://iastructe.co.in/online-refresher-course.php>

For any clarification on the above steps, please contact the IAStructE Secretariat on
Email iastructe@gmail.com, Tel: 011-45794829, +919968299155

PROGRAMME FOR COURSE ON DESIGN & CONSTRUCTION OF STEEL BRIDGES

COURSE CO-ORDINATOR : **Mr. Anirban Sengupta** , CTO, STUP Consultants Pvt Ltd
(TIMINGS FOR THE COURSE : 14:30 HRS TO 18:30 HRS)

S.No.	Title*	DAY	Duration	Proposed Faculty*
DAY – 1 - OVERVIEW OF STEEL BRIDGE DESIGN (17th July)				
1	Evolution of Steel Bridges & Special features	1 st Saturday	1.0 Hrs.	Mr. Amitabha Ghoshal Advisory Consultant
2	Aesthetics & conceptual design of Steel Bridges	1 st Saturday	45 mins	Dr. Harshavardhan Subbarao Managing Director, Construma Consultancy Pvt Ltd
3	Background of Flexure Strength, Axial Compression & tension, Shear, Torsion, Deflections & Buckling.	1 st Saturday	1.5 Hrs.	Dr. Satish Kumar Professor, Structural Engineering, IIT Madras
4	Sponsored Presentation	1 st Saturday	30 min.	TBN**
5	Panel Discussions	1 st Saturday	30 min	
DAY – 2 - DESIGN PRINCIPLES – 1 (24th July)				
6	Broad overview and provisions of IRC:24	2 nd Saturday	45 mins.	Mr. Sumantra Sengupta Chief Manager, STUP Consultants Pvt. Ltd
7	Broad Overview and provision of IRC: 22	2 nd Saturday	45 mins	Mr. V. Karthik Team Leader (Bridges), Ramboll India Pvt. Ltd.
8	Broad overview of IRS Steel Bridge Codes	2 nd Saturday	1.0 Hrs.	Dr. S. K. Garg Chief Project Manager, DMRC
9	Design of Steel-Concrete Composite Girder Bridges – Road/ Rail & Example	2 nd Saturday	1.0 Hrs.	Mr. Sumatra Sengupta Chief Manager, STUP Consultants Pvt. Ltd
10	Panel Discussions	2 nd Saturday	30 min	
DAY – 3 – DESIGN PRINCIPLES – 2 (31st July)				
11	Challenges in Design and construction of Railway Bridges	3 rd Saturday	1.0 Hrs.	Mr. Vivek Bhushan Sood Chief General Manager, Indian Railway Stations Development Corporation
12	Design for fatigue - Steel Railway & Road Bridges	3 rd Saturday	1.0 Hrs.	Dr. S. K. Garg Chief Project Manager, DMRC
13	Significance of Buckling for Steel for Compression buckling, Flexural and lateral torsional buckling & Web bucking	3 rd Saturday	1.0 Hrs.	Dr. Satish Kumar Professor, Structural Engineering, IIT Madras
14	Sponsored Presentation	3 rd Saturday	30 mins	TBN**
15	Panel Discussions	3 rd Saturday	30 mins	
DAY – 4 – DESIGN METHODOLOGY & DETAILING (7th August)				
16	Durability & Ductility design of Steel Bridges	4 th Saturday	1.0 Hrs.	Dr. S. K. Garg Chief Project Manager, DMRC
17	Special Design aspects of through type truss bridges including joints design, detailing & erection condition etc. – Road/ Rail – with illustration	4 th Saturday	1.0 Hrs.	Mr. Anirban Sengupta CTO, STUP Consultants Pvt Ltd
18	Design & Construction of Arch bridges	4 th Saturday	1.0 Hrs.	Mr. Atul Bhoje Managing Director, TPF Engineering Pvt Ltd
19	Sponsored Presentation		30 mins	TBN**
20	Panel Discussions	4 th Saturday	30 mins	

PROGRAMME FOR COURSE ON DESIGN & CONSTRUCTION OF STEEL BRIDGES

COURSE CO-ORDINATOR : Mr. Anirban Sengupta , CTO, STUP Consultants Pvt Ltd

(TIMINGS FOR THE COURSE : 14:30 HRS TO 18:30 HRS)

S.No.	Title*	DAY	Duration	Proposed Faculty*
DAY – 5 – FABRICATION, PROTECTION & ERECTION (14th August)				
21	Guidelines on fabrication & protection	5 th Saturday	50 mins	Mr. G. Mohanty Managing Director, Corrosion Protection (P) Ltd
22	Design and Construction of Bogieel Superstructure by Incremental/ Push launching method – Case Study	5 th Saturday	50 mins	Mr. S. B. Joshi Advisor, AFCONS Infrastructures Ltd
23	CASE STUDY – Fabrication and Erection of iconic Signature bridge at Delhi	5 th Saturday	50 mins	Mr. V. N. Heggade CEO, STUP Consultants Pvt Ltd
24	Advance Design of Plate Girders	5 th Saturday	1.0 Hrs	Prof. Arul Jayachandran Professor, IIT Madras
25	Panel Discussions	5 th Saturday	30 mins	
DAY – 6 – CASE STUDIES (21st August)				
26	Continuous steel box girder made composite with concrete deck	6 th Saturday	1.0 Hrs.	Prof. Mahesh Tandon Managing Director, Tandon Consultants Pvt Ltd
27	CASE STUDY – Design concept of an iconic steel pedestrian bridge with tubular sections	6 th Saturday	1.0 Hrs	Mr. Y. Waingankar Jt. Principal Manager, STUP Consultants Pvt. Ltd
28	CASE STUDY – Construction of Chenab Arch Bridge with bolting, welding precautions, erection sequence	6 th Saturday	1.0 Hrs.	Mr. Srinivas Mantrala Vice President / Technical, Afcons
29	Case study of design and construction of Patna rail cum road bridges.	6 th Saturday	45 mins	Dr. Harshavardan Subbarao Managing Director, Construma Consultancy Pvt Ltd
30	Panel Discussion		30 mins	
DAY – 7 – REPAIR & REHABILITATION (28th August)				
31	Maintenance system of railway steel Bridge with Case study	7 th Saturday	45 mins	Dr. S. K. Garg Chief Project Manager, DMRC
32	CASE STUDY – Rehabilitation of Gaundalim Bridge, Goa.	7 th Saturday	45 mins	Mr. Alok Bhowmick Managing Director, B&S Engineering Consultants Pvt Ltd
33	History of Bridge failures & Learning & restoration	7 th Saturday	1.5 Hrs	Mr. Amitabha Ghoshal Advisory Consultant
34	Panel Discussion		1.0 Hrs.	ALL FACULTY AS PANELIST

* The faculty / subject shown above is tentative subject to the confirmation

** TBN: To be notified