


A 5-Day Online Technical Workshop on
Engineering the Span : Bridge Superstructures
(Part -1)

16th - 20th
June
2025

Organised by



SVNIT
SURAT

 **SENVIRA**
Engineering Pvt. Ltd.
(incubated at NIT Tiruchirappalli)

DAY 1

INTRODUCTION AND LOADINGS

1. Bridge: Introduction, Types and Classifications
2. Functions of each Component of Bridge
3. Design Standards (IRC2 to IRS137)
4. Loadings in Bridges (DL, SIDL, LL, WIND, EQ)
5. Load Combinations (IRC6-2017)
6. Analyses Methods and Design Philosophy (IRC 112:2020)

DESIGN OF RCC DECK AND GIRDER

1. Grillage and Plate Analysis for Superstructure
2. Reinforced Concrete Design of Deck
3. Reinforced Concrete Design of Girder

DAY 2

DAY 3

DESIGN OF PRESTRESSED CONCRETE GIRDER AND RCC BOX CULVERT

1. Design of Prestressed Concrete Girder
2. Design of Box Culverts

DESIGN OF STEEL CONCRETE COMPOSITE GIRDER BRIDGE

1. Introduction to Steel Girder Bridges
2. Analysis and Design of Steel Concrete Composite Girder Bridge

DAY 4

DAY 5

DESIGN OF PRESTRESSED CONCRETE BRIDGE USING MIDAS

1. Design of Prestressed Concrete Bridge using MIDAS Application

About the Host Institute

Sardar Vallabhbhai National Institute of Technology (SVNIT) was established in 1961 as one of the Regional Engineering Colleges for imparting technical education. In exercise of the powers conferred by section 3 of the University Grants Commission (UGC) Act, 1956, the Central Government, on the advice of the University Grants Commission, has declared the Sardar Vallabhbhai Regional College of Engineering & Technology (SVREC), Surat to Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat with status of “Deemed University” with effect from 4th December 2002. The Institute has been granted the status of ‘Institute of National Importance’ w.e.f. 15th August 2007.

About the Department of Civil Engineering

Department of Civil Engineering came into existence in 1961 and is one of the founding departments of the Institute. The department has 38 qualified and dedicated faculty members specialized in various areas. The department is involved in various UG & seven PG programs, and a research program leading to Ph.D. degree. Department students with their diversified culture/backgrounds are at the forefront of acquiring professional and technical knowledge. The department has been a pioneer and leader in carrying out tests and challenging consultancy works in various areas of Civil Engineering.

About SENVIRA Engineering Pvt Ltd

Senvira Engineering Private Limited is a forward-thinking structural consultancy firm incubated at the *Center for Entrepreneurship Development and Incubation* (CEDI), NIT Tiruchirappalli. Rooted in innovation and excellence, we specialize in structural design, assessment, and research, delivering safe, sustainable, and cost-effective solutions. Our mission is to transform structural consultancy through technology-driven, resilient designs, while our vision focuses on enabling affordable housing for low- and middle-income communities. Committed to progress and impact, we aim to redefine engineering standards and drive inclusive development.

Who can Attend?

UG and PG students of Civil/Structural Engineering, Research Scholars, Faculty Members from Engineering Institutions, Industry Professionals and Design Engineers, Government and Private Sector Engineers from PWD, NHAI, Railways, or Consultancy Firms.

Registration Fees

Category	Fee
Students & Research Scholars	₹ 885
Academicians	₹ 2360
Industry Personnel and Engineers	₹ 2950

*Including GST

The registration fee is non-refundable and should be paid through online mode to the following account:

Account Name : **SENVIRA Engineering Pvt Ltd**
Bank Name : **HDFC (Branch - Thiruverumbur)**
Account Number : **50200107664872**
IFSC Code : **HDFC0002086**

Registration Link : <https://forms.gle/y4kTMM9Vm6Ci7t2i7>

Last Date of Registration : 07/06/2025

Benefits

* Participants will get an *e-certificate* on successful completion of the course

Coordinators

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