

# PACKAGES OF RECORDED SESSIONS

# FOR STRUCTURAL ENGINEERS

# 2025





## **1. INTRODUCTION**

SQVe Consultants launched numbers of unique online courses in past within approximately four years of time. The courses are focusing on the current challenges being faced in the industry and possible solutions for the same. The courses were arranged on the areas of wind engineering, earthquake resistant design, design of machine foundations, design of pipe-rack, design of steel structures, design of PEB structures, design of RCC structures, design of liquid retaining structures, design of foundations, latest provision of IS codes such as IS 800:2007, IS 16700:2023, IS 1893 (Part 1): 2016, IS 1893 (Part 4):2024, IS 13920 (2016) along with software applications in STAAD.Pro, ETABS, RCDC, RAM connection, etc. For design of steel structures, couple of courses focused on AISC 360-22 and EUROCODE-3. There are total **16 nos. of unique online courses** having total **247 sessions** with **370+ contact hours**.

List of 247 sessions along with titles are mentioned in **Annexure A** and link of the individual online courses are included in **Annexure B** of the document.

We would like to take this opportunity to thank all the participants of the online courses for supporting the initiative and for their encouraging feedback for the courses which truly inspires us for taking more such initiatives.

All the sessions of the above-mentioned courses are recorded and access of the same may be purchased so that the courses may be taken up as self-paced online course. Based on the inquiries which we are receiving from the engineers and based on the popular combinations of the different courses, we have clubbed **247** sessions of **16** online courses in the different **11** nos. of packages.

#### From the above -mentioned courses, 11 packages are created as follows:

REC-STR-005: Learn wind force estimation as per IS 875 (Part 3):2015

REC-STR-006: Learn earthquake resistant design along with software applications

REC-STR-007: Learn software applications in STAAD.Pro, ETABS & RCDC

**REC-STR-008**: Advanced analysis in earthquake resistant design and comparison of STAAD.Pro, ETABS and RCDC

REC-STR-009: Design of Pipe-rack & Machine Foundations for Oil and Gas industry

**REC-STR-010**: Learn IS 800:2007 along with software applications in STAAD.Pro and connection design using EUROCODE, AISC 360 & IS 800:2007 | RAM connection software

**REC-STR-011**: Learn AISC-360 22 along with software applications in STAAD.Pro and connection design using EUROCODE, AISC 360 & IS 800:2007 | RAM connection software

**REC-STR-012**: Design of Warehouse type of PEB structures as per IS 800:2007 | STAAD.Pro | RAM Connection | RCDC

Link: <u>https://sqveconsultants.com/recorded-sessions</u> Email: <u>contact@sqveconsultants.com</u>



**REC-STR-013**: Learn design of steel structures using IS 800:2007 | AISC 360-22 along with connection design | Design of Warehouse type of PEB structures as per IS 800:2007 | STAAD.Pro | RAM Connection | RCDC

**REC-STR-014**: Design of Pipe Rack for Oil & Gas Industry and design of steel structures along with connection design as per American codes

REC-STR-015: Design of RCC structures, liquid retaining structure, foundation design as per Indian codes

## 2. WHAT IS UNIQUE ABOUT THESE COURSES?

- ✓ The courses are designed by the experienced engineers who have more than two decades of experience in the field of structural engineering.
- ✓ The courses are designed from the **practical aspects** which can be readily used in the real projects.
- ✓ The self-paced online courses are generated from the recorded sessions of previous online courses. Q&A sessions are also recoded and uploaded at the portal. Documents discussed during the sessions such as software files, presentation documents, etc. will be also shared with the participant for reference.
- ✓ After going through the recorded sessions, the participants can raise the queries through WhatsApp.
  The same will be discussed through chat, phone or live session, as required.
- ✓ The recorded sessions can be accessed for the **duration** of 3 months, 6 months, 3 years and 5 years.
- ✓ **Certificate** for participation will be issued after successful completion of the online courses.
- ✓ The courses are designed as a **process of learning together**.

### **3. WHO SHOULD PARTICIPATE?**

The courses will be useful for following:

- ✓ Practicing Structural Consultants
- ✓ Senior Structural Engineers in the company
- ✓ Junior Structural Engineers in the company
- ✓ Owner's consultants
- ✓ Proof checking consultants
- ✓ Government professionals involved in structural engineering
- ✓ PEB design engineers
- ✓ Research scholars, Academicians
- ✓ Post Graduate students in Structural Engineering
- ✓ Civil engineering students who are interested in Structural Engineering, etc.



## 4. Packages of online recorded sessions

- ✓ Following page shows, details of different **packages** along with the fees for access duration of 3 months, 6 months, 3 years and 5 years.
- ✓ Details of packages REC-STR-005, REC-STR-006, REC-STR-007, REC-STR-008, REC-STR-009, REC-STR-010, REC-STR-011, REC-STR-012, REC-STR-013, REC-STR-014, REC-STR-015 & REC-STR-016 are mentioned in the subsequent pages.
- ✓ Earlier packages of recorded sessions REC-STR-001, REC-STR-002, REC-STR-003 and REC-STR-004 are discontinued with immediate effect. Engineers who purchased before 1-JUN-24 can access the same. However, the same are not available for the purchase starting from 1-JUN-24.
- ✓ Annexure A shows titles of different sessions covered in the individual online course. The same will give an idea about contact hours of the program and the content covered in the different packages.
- ✓ Annexure B shows link of the webpages for the individual online courses. The same will help in understanding the main focus area of the courses.

### **5. IMPORTANT NOTES\*\***

- ✓ Fees are inclusive of **GST** (18%). GST invoice is available.
- ✓ For any package, payment may be made in **installments** within three months. First installment of 50%, Second instalment of 30% and Third instalment of 20%.
- ✓ If you already purchased any online course for the duration of six months then access for the same course can be extended for additional six months of time with only 10% of the fees.
- ✓ Fees are mentioned for the Indian participants. Interested participants outside India may connect with us for further details through email address: contact@sqveconsultants.com
- ✓ For students pursuing graduation or post graduation, 20% discount is applicable. Interested student shall send request for availing the discount through their institute email address.
- ✓ For any queries, feel free to **connect with us** through email address: contact@sqveconsultants.com



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# 6. COURSE SCHEDULE

Start Date	Zero day (from date of purchase of the package)
End Date	<b>3 months, 6 months, 3 years or 5 years from Zero day</b> (depending upon the access period preferred by the participant)
Title of each session	Please refer Annexure A of the document for titles of each session.

# 7. HOW TO REGISTER FOR THE COURSE?

Following shows step-by-step approach for purchasing access to the package:

- ✓ Select the package of your interest (from REC-STR-005 to REC-STR-016).
  - For any doubts in selection of the package, feel free to connect with us through email address: <u>contact@sqveconsultants.com</u>. We will arrange a free call for detailed discussion. One can also create customised package from the above- mentioned courses. Access to individual courses also can be purchased instead of combo packages.
- ✓ Decide the preferred duration for access of the course, i.e. 3 months, 6 months, 3 years or 5 years.
  Based on the access duration, the applicable fees are mentioned in the document.
- ✓ For availing students discount or any other applicable discount, please get in touch with us through the above mentioned email address.
- ✓ The fees can be paid in three monthly installments, i.e. First instalment of 50%, Second instalment of 30% and Third instalment of 20%.



- ✓ Following payment options are available:
  - Google Pay



• Razorpay (Payment can be made using net banking, credit card, debit card, UPI, etc.)

Link: https://razorpay.me/@sqveconsultants

✓ Above mentioned payment options are only for participants from India. For engineers outside of India, please connect with us for fee and payment details.

## 8. About SQVe Consultants

**SQVe Consultants** (SQVe) is a company established with a vision of enhancing the engineering profession. Name of the company is derived from the first letters of major goals of engineering, i.e. **S**chedule adherence, **Q**uality assurance & **V**alue **e**ngineering. For success of any project, it is required that all these goals are considered simultaneously in the projects. However, in today's fast track projects, it is indeed difficult to address all the goals in the design engineering cycle simultaneously. We believe that for achieving these desired goals, there are many developmental activities (off-project) required in the organisations for continual improvement. Our all services are designed to assist different organizations to achieve the engineering goals. We intend to collaborate with the different organisations for long term basis and aim towards enhancing the engineering profession through our unique services. Our values are Innovation, Commitment & Integrity.

#### Your partner for achieving engineering goals!

We look forward for **long term association** with different organisations for enhancement of engineering profession through our unique services. Please get in touch with us for any requirements related to online or offline training for civi/structural engineering as well as in the area of people management (soft skills).

We also provide unique service for improvement in **quality assurance** of the structural consultancy companies. For more information, please get in touch with us for scheduling the free call to understand the details.

For more details, please refer website : <u>https://sqveconsultants.com</u>

You may contact us at email address : contact@sqveconsultants.com



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# **ANNEXURE A**

# **Title of sessions for different courses**



Course ID	No.	Title of the session
WIND-STR-001	1	Wind Characteristics
WIND-STR-001	2	Queries from participants
WIND-STR-001	3	Wind force estimation for SHED TYPE structures as per IS 875 (Part 3) : 2015
WIND-STR-001	4	Wind force estimation for DOMED ROOF as per IS 875 (Part 3) : 2015
WIND-STR-001	5	Wind force estimation for MULTI SPAN STRUCTURES as per IS 875 (Part 3):2015
WIND-STR-001	6	Wind force estimation for HOARDINGS as per IS 875 (Part 3) : 2015
WIND-STR-001	7	Wind tunnel testing requirements for LOW RISE STRUCTURES
WIND-STR-001	8	OPEN DISCUSSION - Queries received from participants
WIND-STR-002	1	Wind characteristics for TALL structures. Changes in Terrain Category effects
WIND-STR-002	2	Force coefficient approach for TALL buildings. Dynamic effects on TALL structures. Response parameters of TALL Buildings
WIND-STR-002	3	Dynamic wind response – Along wind response as per IS 875 (Part 3)
WIND-STR-002	4	Wind tunnels and Interference effects
WIND-STR-002	5	Along wind response - examples
WIND-STR-002	6	Along wind response - examples
WIND-STR-002	7	Across wind response for TALL structures
WIND-STR-002	8	Across wind response for TALL structures
WIND-STR-002	9	OPEN DISCUSSION - Response to queries from participants
EQ-STR-002	1	Single degree of freedom systems
EQ-STR-002	2	Multi degree of freedom - basics of structural dynamics
EQ-STR-002	3	Multi Degree of Freedom (Part 2) _ Elastic spectra (Part 1)
EQ-STR-002	4	Elastic Spectra (Part 1cont.)
EQ-STR-002	5	Elastic spectra (Part 2)
EQ-STR-002	6	Elastic spectra _ Basics of inelastic behavior of structurers



Course ID	No.	Title of the session
EQ-STR-002	7	Understanding IS 1893 (Part 1) _ 2016
EQ-STR-002	8	Discussion on IS 1893 (Part 1)cont
EQ-STR-002	9	IS 1893 (Part 1) _ 2016 and STAAD.Pro
EQ-STR-002	10	IS 1893 (Part 1) 2016 and STAADcont
EQ-STR-002	11	Discussion on ETABS software & IS 1893(Part 1) _ 2016
EQ-STR-002	12	Discussion on IS 13920_2016
EQ-STR-002	13	Discussions on IS 16700_2017 (up to section 7 only)
EQ-STR-002	14	Discussions on software applications
EQ-STR-002	15	Discussions on Software applications
EQ-STR-002	16	Software applications for few points _ Open discussion
EQ-STR-003	1	Understanding of stiffness modifiers as per IS 1893 (Part 1) : 2016 & IS 16700 : 2017
EQ-STR-003	2	Application of stiffness modifier in STAAD and it's impact on behaviour of structure (live demonstration in software)
EQ-STR-003	3	Application of stiffness modifier in ETABS and it's impact on behaviour of structure (live demonstration in software)
EQ-STR-003	4	Do's & Don'ts for stiffness modifiers   Open discussion
EQ-STR-004	1	Basics of Structural Dynamics (Part 1)
EQ-STR-004	2	Basics of structural dynamics (Part 2)
EQ-STR-004	3	Basics of structural dynamics (PART 3)
EQ-STR-004	4	Basics of structural dynamics (Part 4)   Response Spectrum Analysis (Part 1)
EQ-STR-004	5	Response Spectrum Analysis (Part 2)
EQ-STR-004	6	Response Spectrum Analysis (Part 3)
EQ-STR-004	7	Response Spectrum Analysis (Part 4)
EQ-STR-004	8	Response Spectrum Analysis (Part-5)



Course ID	No.	Title of the session
EQ-STR-004	9	P_DELTA analysis (Part 1)
EQ-STR-004	10	P_DELTA Analysis (PART 2)
EQ-STR-004	11	P_DELTA Analysis (PART 3)
EQ-STR-004	12	Pushover analysis (Part-1)
EQ-STR-004	13	Pushover Analysis (Part 2)
EQ-STR-004	14	Pushover analysis (Part 3)
EQ-STR-004	15	Pushover Analysis (Part 4)
EQ-STR-004	16	Pushover analysis (Part 5)
EQ-STR-004	17	Nonlinear time history analysis (Part 1)
EQ-STR-004	18	Nonlinear time history analysis (Part 2)
EQ-STR-004	19	Nonlinear time history analysis (Part 3)
EQ-STR-004	20	Overview of PBD   Concluding remarks   Discussion for queries
STAAD-STR-001	1	Approach to software
STAAD-STR-001	2	Geometry creation
STAAD-STR-001	3	Physical Modelling
STAAD-STR-001	4	Property, Material & Specifications
STAAD-STR-001	5	Specifications, Supports & Dead load
STAAD-STR-001	6	Dead load, Live load, Wind load
STAAD-STR-001	7	Wind load
STAAD-STR-001	8	Basics of Structural dynamics and equivalent static load for earthquake
STAAD-STR-001	9	Earthquake Resistant Design _ Part 2
STAAD-STR-001	10	Earthquake resistant design - 3
STAAD-STR-001	11	Earthquake resistant design - 4



Course ID	No.	Title of the session
STAAD-STR-001	12	Earthquake Resistant Design - 5
STAAD-STR-001	13	Queries from participants & Advanced analysis options
STAAD-STR-001	14	Design parameters for steel and concrete
STAAD-STR-001	15	Finite element method - Plate and Solid elements
STAAD-STR-001	16	Overview of RCDC for design of concrete and discussions on queries from participants
STAAD-STR-001	17	Advanced Concrete Design and discussions on queries from participants
STAAD-STR-001	18	Design of RC beams & columns and queries from participants
STAAD-STR-001	19	Troubleshooting in the STAAD.Pro software
STAAD-STR-001	20	Queries from the participants & Brief about Advanced Foundation Design
STAAD-STR-001	21	Queries from participants and basics of OPEN STAAD
ETABS-STR-002	1	Context setting & Overall understanding of the software
ETABS-STR-002	2	Geometry creation, property specifications, Local axes of elements
ETABS-STR-002	3	Section Designer, Releases, End length offset, Insertion point & SHELL element
ETABS-STR-002	4	Edit, View & Select commands and Behaviour of shell element
ETABS-STR-002	5	Behaviour of Shell elements
ETABS-STR-002	6	Application of loads in ETABS
ETABS-STR-002	7	Application of earthquake force in the software
ETABS-STR-002	8	Application of vertical seismic load in ETABS
ETABS-STR-002	9	Response spectrum analysis, Torsion consideration, Load combinations, Stiffness modifiers
ETABS-STR-002	10	Stiffness modifier, P delta, Story drift & Modelling of shear wall
ETABS-STR-002	11	Design of beams and columns in the software



Course ID	No.	Title of the session
ETABS-STR-002	13	Discussion on shear wall, Strong column weak beam, Gravity column & Design of steel structures
ETABS-STR-002	14	Discussion on interpretation of results for shell elements, shear wall, design of steel structures
ETABS-STR-002	15	Composite column design, soil structure interaction, slab design
ETABS-STR-002	16	Construction sequence load in the software
STEEL-STR-001	1	Basics of steel structure   Overview of IS 800:2007
STEEL-STR-001	2	Changes made in NBC 2016   Slender sections   Types of analysis (Part 1)
STEEL-STR-001	3	Types of analysis   Buckling analysis   ETABS   STAAD.Pro
STEEL-STR-001	4	Buckling analysis   Second order elastic analysis   STAAD.Pro
STEEL-STR-001	5	P-delta analysis   STAAD.Pro
STEEL-STR-001	6	Design of tension member   STAAD Pro   ETABS  Design of compression member
STEEL-STR-001	7	Design of compression member   STAAD Pro   ETABS   Pure bending
STEEL-STR-001	8	Elastic lateral torsional buckling   STAAD Pro   ETABS
STEEL-STR-001	9	Design of member for pure bending   STAAD Pro   ETABS   Combined forces
STEEL-STR-001	10	Design of members for combined forces   STAAD Pro   ETABS
STEEL-STR-001	11	Connection design (Part 1)
STEEL-STR-001	12	Design of connections   RAM connection software (Part 2)
STEEL-STR-001	13	Design of connections   RAM connection software (Part 3)
STEEL-STR-001	14	Design of connections (Part 4)   Earthquake resistant design (Part 1)
STEEL-STR-001	15	Earthquake resistant design   NBC 2016   IS 18168 - (Part 2)
STEEL-STR-001	16	Earthquake resistant design   IS 18168 : 2023   (Part -3)
STEEL-STR-001	17	Discussion on case study - (Part 1)
STEEL-STR-001	18	Discussion on case study   Way-forward (Part 2)



Course ID	No.	Title of the session
STEEL-STR-005	1	Session 1 - Overview of AISC 360-22 & Design requirements
STEEL-STR-005	2	Session 2 - Cross section   Material   Structural system   Buckling
STEEL-STR-005	3	Session 3 - Buckling analysis   Design for stability
STEEL-STR-005	4	Session 4 - Design for stability
STEEL-STR-005	5	Session 5 - Verification examples for stability analysis   Different types of analysis
STEEL-STR-005	6	Session 6 - Design of Tension members
STEEL-STR-005	7	Session 7 - Direct analysis method in STAAD
STEEL-STR-005	8	Session 8 - Design of Compression members
STEEL-STR-005	9	Session 9 - Design of members for flexure
STEEL-STR-005	10	Session 10- Design of members for flexure (Part 2)
STEEL-STR-005	11	Session 11 - Design parameters in STAAD   Design of members for bending in STAAD
STEEL-STR-005	12	Session 12 - Design of members for combined forces   Learning from failure of structures
STEEL-STR-005	13	Session 13 - Design of connections for steel structure
STEEL-STR-005	14	Session 14 - Design of connections for steel structure (Part 2)
STEEL-STR-005	15	Session 15 - Design of connections for steel structures (Part 3)
STEEL-STR-005	16	Session 16 - Design of connections for steel structures (Part 4)
STEEL-STR-005	17	Session 17 - Seismic design requirements as per AISC 341-16
STEEL-STR-005	18	Session 18 - Seismic design requirements as per AISC 358-16
STEEL-STR-005	19	Session 19- Overview of Seismic load & Wind load generation in STAAD Pro
STEEL-STR-006	1	Structural behaviour and connections   Introduction
STEEL-STR-006	2	Overview of design of connections as per Eurocode -3
STEEL-STR-006	3	Overview of Eurocode-3   Bolt and Weld capacity
STEEL-STR-006	4	Eurocode-3  Classification & Modelling  Component design  Shear connection



Course ID	No.	Title of the session
STEEL-STR-006	5	Design of shear connections   SCI P358   RAM connection
STEEL-STR-006	6	Design of shear connections  Fin plate connection SCI P358  RAM connection
STEEL-STR-006	7	Splice & Bracing connection  P358  RAM connection  Moment connection
STEEL-STR-006	8	Design of moment connections   SCI P398   RAM connection
STEEL-STR-006	9	Moment connections   SCI P398   RAM Connection   Overview of AISC 360-22
STEEL-STR-006	10	Overview of AISC 360-22   Worked out examples  RAM Connection
STEEL-STR-006	11	Design of connections in RAM Connection as per AISC 360-22
STEEL-STR-006	12	Connections for tubular sections Eurocode-3  AISC 360-22  RAM connection
STEEL-STR-006	13	Prequalified connections as per AISC 358-16   RAM connection
STEEL-STR-006	14	Overview of connection design as per IS 800:2007
STEEL-STR-006	15	Connections for earthquake resistant design  IS 800:2007 RAM connections
STEEL-STR-006	16	Discussion related to queries   Way-forward
STEEL-STR-007	1	Stability concepts for design of shed type of structure (Part 1)
STEEL-STR-007	2	Stability concepts for design of shed type of structure (Part 2)
STEEL-STR-007	3	Stability concepts for design of shed type of structure (Part 3)
STEEL-STR-007	4	Stability concepts for design of shed type of structures (part 4)
STEEL-STR-007	5	FEM models for Rafter   Lateral Torsional Buckling
STEEL-STR-007	6	FEM models for Purlins   Lateral torsional buckling   Load capacity
STEEL-STR-007	7	Warehouse no. 1   Geometry   Structural system   Gravity load (Part 1)
STEEL-STR-007	7	Warehouse no. 1   Geometry   Structural system   Gravity load (Part 2)
STEEL-STR-007	8	WH no. 1   Property  Gravity load  Notional load  Erection load (Part 1)
STEEL-STR-007	8	WH no. 1   Property  Gravity load  Notional load  Erection load (Part 1)
STEEL-STR-007	8	WH no. 1   Property  Gravity load  Notional load  Erection load (Part 1)



Course ID	No.	Title of the session
STEEL-STR-007	9	Warehouse no. 1   Seismic loads   IS 1893 (Part 4) - 2024
STEEL-STR-007	10	WH1   Seismic load   Response spectrum method   Wind load calculations
STEEL-STR-007	11	Warehouse no. 1   Wind load calculations as per IS 875 (Part 3):2015
STEEL-STR-007	12	WH no. 1   Wind force application   P-delta analysis   Buckling analysis
STEEL-STR-007	13	Warehouse no. 1   Design parameters  Design of steel structures (Part 1)
STEEL-STR-007	14	Warehouse no. 1  Design parameters   Design of steel structures (Part 2)
STEEL-STR-007	15	WH 1   Design parameter   Effective length  Taper slender section
STEEL-STR-007	16	Warehouse no. 1   Connection design   RAM Connection
STEEL-STR-007	17	Warehouse no. 1   Foundation design   RCDC
STEEL-STR-007	18	WH 2   Geometry   Structural system  Loading   Design of steel structure
STEEL-STR-007	19	WH 2   Connection design   Foundation design   Queries   Way forward
RCC-STR-001	1	Response Spectrum Analysis   STAAD Pro
RCC-STR-001	2	Response Spectrum Analysis (Part 2)   STAAD Pro
RCC-STR-001	3	Response spectrum analysis (part 3)   STAAD Pro   ETABS
RCC-STR-001	4	Response Spectrum Analysis (Part 4)   ETABS
RCC-STR-001	5	P-Delta analysis   STAAD Pro   ETABS



Course ID	No.	Title of the session
RCC-STR-001	6	P-delta analysis   ETABS
RCC-STR-001	7	Torsion eccentricity   Stiffness Modifiers   ETABS   STAAD
RCC-STR-001	8	Stiffness modifiers   Ritz vector analysis   Membrane vs thin shell   ETABS
RCC-STR-001	9	Queries from the participants   Stiffness modifier   Membrane vs Thin shell
RCC-STR-001	10	Rigid vs Semi-rigid diaphragm, Design of columns   STAAD   RCDC   ETABS
RCC-STR-001	11	Design of columns   STAAD Pro   RCDC   ETABS
RCC-STR-001	12	Design of columns   Effective length   Stability Index
RCC-STR-001	13	Design of columns   Temperature forces   Queries from participants
RCC-STR-001	14	Design of shear wall   Queries from the participants
RCC-STR-001	15	Design of Shear Wall   Queries from participants
DYN-STR-001	1	Basics of Structural Dynamics (Part 1)
DYN-STR-001	2	Basics of Structural Dynamics (Part 2)
DYN-STR-001	3	Basics of Structural Dynamics (Part 3)
DYN-STR-001	4	Basics of Structural Dynamics (Part 4)   Types of Machines
DYN-STR-001	5	Step by step approach for design of Machine Foundations
DYN-STR-001	6	Solid elements   Dynamic analysis of cantilever beam
DYN-STR-001	7	Soil Dynamics   Calculations of equivalent spring values
DYN-STR-001	8	Reciprocating equipment foundation   Discussion on IS 2974 (Part 1)
DYN-STR-001	9	Reciprocating equipment foundation   3D model in the software
DYN-STR-001	10	Reciprocating equipment foundation   3D model in the software  Part-2
DYN-STR-001	11	Discussion on IS 2974 (Part 4)   3D model of Rotary machine foundation
DYN-STR-001	12	Discussion on IS 2974 (Part 3)   3D model of Table Top Foundation
DYN-STR-001	13	Machine supported on floor   Queries from the participants



Course ID	No.	Title of the session
ONG-STR-001	1	Context setting   Overview of Oil and Gas Industry   Cross section of Pipe Rack
ONG-STR-001	2	Pipe supports   Air Fin Cooler   Fire proofing requirements   PIP standard (Part 1)
ONG-STR-001	3	PIP document   Thermal anchor and Thermal friction   Pipe surge
ONG-STR-001	4	Discussion on input data for Pipe Rack   Structural system for Pipe Rack
ONG-STR-001	5	AFC nozzle loads   Further analysis of input   DL   LL   Piping loads
ONG-STR-001	6	Important points for structural system   Preliminary sizing   Support conditions
ONG-STR-001	7	Queries from participants   Wind load calculations as per ASCE 7 (Part 1)
ONG-STR-001	8	Wind load calculations in transverse direction of Pipe Rack (Part 2)
ONG-STR-001	9	Fireproofing   Longitudinal wind force calculations   Application of wind force in software
ONG-STR-001	10	Modal analysis of Pipe rack   Mode shapes   Natural frequencies   Structural behaviour
ONG-STR-001	11	Modal analysis   Seismic load calculations as per ASCE 7 (Part 1)
ONG-STR-001	12	Seismic load calculations as per ASCE 7   Software applications (Part 2)
ONG-STR-001	13	Seismic load as per ASCE 7 (Part 3)   Load combinations   Notional loads
ONG-STR-001	14	Direct Analysis Method as per AISC 360-22
ONG-STR-001	15	Repeat load   Direct analysis method  Design parameters as per AISC 360-16
ONG-STR-001	16	Design parameters as per ASCE 7-16 & AISC 341-16 (Part 2)
ONG-STR-001	17	Design of connections   AISC 358-16   RAM connection
ONG-STR-001	18	Design of connections   RAM connections   Design of foundations   RCDC
ONG-STR-001	19	Design parameters as per IS 800:2007   Vibration in Piperack   Q&A   Way Forward



Course ID	No.	Title of the session
RCC-STR-002	1	Introduction   Detailed discussion on IS 3370 (Part 1) : 2021
RCC-STR-002	2	Detailed discussion on IS 3370 (Part 1) : 2021Cont.
RCC-STR-002	3	Detailed discussion on IS 3370 (Part 2) : 2021
RCC-STR-002	4	Detailed discussion on IS 3370 (Part 2) : 2021   Crack width calculations for immature concrete
RCC-STR-002	5	Crack width calculations for mature concrete   IS 3370 (Part 4 / Sec 1) : 2021
RCC-STR-002	6	IS 3370 (Part 4 / Sec 1) : 2021   Fundamentals of FEM   STAAD Pro (Part 1)
RCC-STR-002	7	IS 3370 (Part 4 / Sec 1) : 2021   Fundamentals of FEM   STAAD Pro   ETABS (Part 2)
RCC-STR-002	8	IS 3370 (Part 4 / Sec 1) : 2021   Use of design table   Comparison with STAAD Pro
RCC-STR-002	9	Session 9 - Individual wall model using ETABS   Rectangular water tank as per IS 3370 (Part 4 / Sec 2) : 2021   Comparison with STAAD Pro results
RCC-STR-002	10	Rectangular & Circular water tanks   IS 3370 (Part 4 / Sec 2 / Sec 3) : 2021   STAAD Pro & ETABS
RCC-STR-002	11	Comparison of deflection   Moody's chart   Circular geometry in ETABS   IS 1893 (Part 2)
RCC-STR-002	12	Calculations of seismic load as per IS 1893 (Part 2):2014 -Part 1
RCC-STR-002	13	Calculations of seismic load as per IS 1893 (Part 2):2014 -Part 2   IS 11682
RCC-STR-002	14	Case study for design of rectangular tank (Part 1)
RCC-STR-002	15	Case study for design of rectangular water tank (Part 2)   Discussion for balance queries



Course ID	No.	Title of the session
RCC-STR-003	1	Introduction   Step by step approach in STAAD Foundation Advanced & SAFE
RCC-STR-003	2	Comparison of pressure calculations   STAAD Foundation Advanced   Manual
RCC-STR-003	3	Foundation for two columns   Four columns   SFA   SAFE
RCC-STR-003	4	Teng's chart   Limitations of Response Spectrum Analysis   STAAD Pro
RCC-STR-003	5	Limitations of RSA   ETABS   SAFE
RCC-STR-003	6	Interface between geotechnical and structural engineers (Part 1)
RCC-STR-003	7	Interface between geotechnical and structural engineer (Part 2)
RCC-STR-003	8	Atterberg limits   Soil structure interaction   Modulus of subgrade reaction
RCC-STR-003	9	Overview of IS geotechnical related codes
RCC-STR-003	10	Pile lateral load capacity calculations   Q & A
RCC-STR-003	11	Overview of geotech related codes   Brief of ground improvement
RCC-STR-003	12	Strip vs FEM results   Isolated footing supported on soil   SAFE
RCC-STR-003	13	Isolated footing   supported on soil & piles   SFA   SAFE
RCC-STR-003	14	Interpretation of FEM results in SFA   One way shear and Two way shear   SAFE
RCC-STR-003	15	One way shear   Two way shear   SAFE   SFA   IS 456
RCC-STR-003	16	Enhanced shear strength   IS 456:2000   Octagonal foundation supporting vertical vessel - SAFE   Octagonal foundation for vessel -SFA   Q & A
RCC-STR-003	17	Octagonal foundation on piles   Chimney foundation   Retaining wall Foundation   Transmission line tower foundation
RCC-STR-003	18	Ground water table   Raft foundation supported on soil
RCC-STR-003	19	Raft supported on piles   Piled- Raft foundation   Q & A



# **ANNEXURE B**

# Link of individual online courses



#### **ANNEXURE B: Link of individual online courses**

Following popular courses are included in the packages. Link of the courses is also mentioned to have an idea about main focus area of the program.

**WIND-STR-001**: Wind force estimation for low rise structures as per IS 875 (Part 3) : 2015 Link: <u>https://sqveconsultants.com/wind-str-001</u>

**WIND-STR-002**: Wind force estimation for TALL structures as per IS 875 (Part 3) : 2015 Link: <u>https://sqveconsultants.com/wind-str-002</u>

**EQ-STR-002**: Learn concepts of earthquake resistant design Link: <u>https://sqveconsultants.com/eq-str-002</u>

**EQ-STR-003**: Stiffness modifiers and software applications Link: <u>https://sqveconsultants.com/eq-str-003</u>

**EQ-STR-004**: Types of analysis for earthquake resistant design | ETABS | STAAD.Pro Link: <u>https://sqveconsultants.com/eq-str-004</u>

**STAAD-STR-001**: Basic to Advanced training for STAAD.Pro Link: <u>https://sqveconsultants.com/staad-str-001</u>

**ETABS-STR-002**: Learn ETABS with fundamentals of structural engineering Link: <u>https://sqveconsultants.com/etabs-str-002</u>

**DYN-STR-001**: Design of Machine Foundations Link: <u>https://sqveconsultants.com/dyn-str-001</u>

RCC-STR-001: Design of RCC structures Link: <u>https://sqveconsultants.com/rcc-str-001</u>

**STEEL-STR-001**: Decode IS 800:2007 along with software applications in STAAD.Pro | RAM connection Link: <u>https://sqveconsultants.com/steel-str-001</u>

**STEEL-STR-005**: Design of steel structures as per AISC 360-22 | STAAD.Pro Link: <u>https://sqveconsultants.com/steel-str-005</u>

**STEEL-STR-006**: Design of connections for steel structures | EUROCODE 3 | AISC 360 | IS 800 : 2007 | RAM connection software Link: <u>https://sqveconsultants.com/steel-str-006</u>

**STEEL-STR-007**: Design of PEB structures as per IS 800:2007 (Part 1) | STAAD.Pro | RAM Connection | RCDC Link: <u>https://sqveconsultants.com/steel-str-007</u>

**ONG-STR-001:** Design of pipe-rack for Oil and Gas industry as per American standards | STAAD Pro | RAM connection | RCDC Link: <u>https://sqveconsultants.com/ong-str-001</u>

**RCC-STR-002:** Design of RCC Liquid retaining structures as per IS codes | STAAD Pro Link:<u>https://sqveconsultants.com/rcc-str-002</u>

**RCC-STR-003:** Foundation Engineering (Part 1) | STAAD Pro | RCDC | SAFE | ETABS Link:<u>https://sqveconsultants.com/rcc-str-003</u>

Link: <u>https://sqveconsultants.com/recorded-sessions</u> Email: <u>contact@sqveconsultants.com</u>

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