SHORT TERM TRAINING PROGRAMME ON

DECODING WIND ENGINEERING AND MORE

ORGANIZED BY:

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai

CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai, is an ISO 9001-certified institute under the Council of Scientific and Industrial Research, India. It collaborates with government bodies and private organizations, serving as a hub for advanced knowledge in structural engineering. CSIR-SERC focuses on application-oriented research in design, construction, and structural rehabilitation.

Institute for Steel Development and Growth (INSDAG), Kolkata

Established in collaboration with the Steel Construction Institute (SCI), UK, INSDAG focuses on developing advanced, cost-effective steel design methodologies, promoting steel applications in construction, enhancing technical skills, and creating awareness among users and students. It actively contributes to revising codes and standards with BIS and IRC to align with the latest advancements.

1ST SEPTEMBER – 12TH SEPTEMBER 2025
(Excluding Saturdays and Sundays)

Mode **ONLINE**

BACKGROUND AND OBJECTIVES:

This programme mainly focuses on the wind loads and their effects (quasi-static and dynamic) on buildings and structures. As wind speeds vary randomly both in time and space, hence assessment of wind loads and the corresponding response are very important for the design of various types of buildings and structures. In this course, specific aspects, from basics to advanced, will be discussed in detail with the source of formulation as given below:

- Background to design wind speed and wind pressure covering the details of basic wind speed, terrain category and various modification factors
- Building aerodynamics addressing wind pressure and force coefficients for different types of buildings and structures
- Background to Gust Factor Method

Apart from the above listed aspects, design of steel column bases and metal roof testing procedures are hot topics that finds place in this series of lectures

COURSE HIGHLIGHTS:

- Duration: 10 days (20 hours total)
- Mode: Online, evening sessions (6:00 PM - 8:00 PM)
- Content: Expert lectures, interactive sessions, and a concluding quiz/test with a valedictory session.
- Resource Material: Copy of the presentations

TARGET AUDIENCE:

- Students: Bachelor's in Civil/Structural Engineering
- Young Professionals: Civil/Structural Engineers

KEY RESOURCE PERSONS:

- Dr. Prem Krishna, Professor (Retired), Indian Institute of Technology, Roorkee
  - Expert: Wind Engineering
- Dr. P. Harikrishna: Chief Scientist, Wind Engineering Laboratory, CSIR-SERC
  - Expertise: Wind effects, Computational Fluid Dynamics, and small wind turbines
- Dr. V. Marimuthu, Senior Principal Scientist, CSIR- SERC
  - Expert: Hot Rolled and Cold Formed Steel Structures, Steel and Composite Structures
- Dr. R. Balagopal: Senior Principal Scientist, Tower Testing Research Station, CSIR-SERC
  - Expertise: Transmission and communication towers, retrofitting techniques
- Dr. P. Prabha: Principal Scientist, Steel Structures Laboratory, CSIR-SERC
  - Expertise: Steel-concrete composite structures, prefab technology
- Dr. M. Saravanan: Principal Scientist, Tower Testing Research Station, CSIR-SERC
  - Expertise: Earthquake-resistant design, metal 3D printing
- Dr. M. Keerthana, Principal Scientist, CSIR- SERC
  - Expert: Aeroelastic phenomenon in long span bridges and tall RC chimneys
- Smt. Nibedita Dey: Senior Manager, INSDAG
  - Expertise: Structural Engineering Design with Steel

PROGRAM SCHEDULE AND TOPICS

S.No	Topic	Duration Date	Speaker
1	Wind Engineering- Introduction	2 Hours 01.09.2025	Dr. Prem Krishna, Professor (Retired), Indian Institute of Technology, Roorkee
	Structural Properties of Steel Introducing Limit State		Smt. Nibedita Dey, Senior Manager, INSDAG
2	Determination of Wind Loads as per IS 875 (Part 3) Part 1-DAY 1	2 Hours 02.09.2025	Dr. P. Harikrishna, Chief Scientist, CSIR- SERC
3	Determination of Wind Loads as per IS 875 (Part 3) Part 1-DAY 2	2 Hours 03.09.2025	Dr. P. Harikrishna, Chief Scientist, CSIR- SERC
4	Building Aerodynamics-DAY 1	2 Hours 04.09.2025	Dr. M. Keerthana, Principal Scientist, CSIR-SERC
5	Building Aerodynamics-DAY 2	2 Hours 05.09.2025	Dr. P. Harikrishna, Chief Scientist, CSIR- SERC
6	Determination of wind pressures and loads on Industrial buildings, Lattice Towers, Self-Supporting Chimneys	2 Hours 08.09.2025	Dr. P. Harikrishna, Chief Scientist, CSIR- SERC
7	Determination of wind pressures and loads on Industrial buildings, Lattice Towers, Self-Supporting Chimneys	2 Hours 09.09.2025	Dr. R. Balagopal, Senior Principal Scientist, CSIR- SERC
8	Wind - Moment design of low-rise steel frames	2 Hours 10.09.2025	Dr. M. Saravanan Principal Scientist, CSIR- SERC
9	Design of steel column bases	2 Hours 11.09.2025	Dr. V. Marimuthu, Senior Principal Scientist, CSIR- SERC
	Introduction to Metal Roof Testing		Dr. P. Prabha, Principal Scientist,CSIR-SERC
10	QUIZ/TEST & VALEDICTORY	2 Hours 12.09.2025	INSDAG

REGISTRATION FEE

Category	Amount (Rs)(including GST)
Students	2360.00
Young Professionals	4720.00

WHAT PARTICIPANTS WILL RECEIVE

- Copy of the presentations
- Certificate of participation (minimum 90% attendance required)

HOW TO APPLY:

Kindly register at the following link or scan the QR:
https://forms.gle/U6ZddEQpqdc4T7PdA

BANK DETAILS WITH QR CODE

INSTITUTE FOR STEEL DEVELOPMENT AND GROWTH
Account No. 08370100004683
Bank Name : UCO Bank
Branch : Kasba
IFSC : UCBA0002081
INSDAG GST No. :19AAAAI0466PIZA
INSDAG PAN : AAAAI0466P
INSDAG TAN :CALI 01219B

THE LAST DATE FOR REGISTRATION IS 29TH AUGUST 2025.

COURSE COORDINATORS:

- Dr. P. Prabha, CSIR-SERC.prabha@serc.res.in 9042011167
- Shri M M Ghosh, INSDAG. Manas.Ghosh@insdag.com 9748482618 (M)