



Institute for Steel
Development and Growth



Indian Association of
Structural Engineers

jointly organizing a

Seminar on

“Steel Structure: Health Checkup and Cure (Inspection, Assessment, Rehabilitation, Retrofitting)”

SAVE THE DATE



09th DECEMBER
2023



From 09:00 AM to
05:00 PM



Gulmohar Hall,
India Habitat Centre,
Lodhi Road, New Delhi-110003

A few seats are available, and registration is open until seats are available

Objective

Steel structures, vital components of our infrastructure, Industrial Plants, demand vigilant care to ensure their durability and safety. The health check-up and subsequent cure of these structures involve a comprehensive process encompassing inspection, assessment, retrofitting, and rehabilitation.

Regular inspections form the cornerstone of this process. Thorough evaluations by qualified professionals help identify potential weaknesses, including corrosion, fatigue, and structural deficiencies. Assessment reports provide a roadmap for necessary interventions, guiding decisions on retrofitting and rehabilitation.

Both retrofitting and rehabilitation strategies contribute to the overall health and longevity of steel structures. They ensure these structures can withstand the test of time, meeting evolving safety standards while preserving their cultural and historical value.

This meticulous process not only guarantees structural integrity but also contributes to sustainability by reducing the environmental impact of constructing new infrastructure. As we look to the future, the health check-up and cure of steel structures through inspection, assessment, retrofitting, and rehabilitation remain crucial in maintaining a resilient, safe, and sustainable built environment.

Aims

The seminar aims in introducing and discussing a gamut of processes and methods in assessing, and then retrofitting and rehabilitating steel structures in order to increase its life and utility. Presentations will also be based on CASE STUDIES and under Indian context.

This seminar targets to create a platform of meeting all the stakeholders, discuss, understand, communicate, and share knowledge under one umbrella the issues in maintenances, curing them smartly and wisely.

With this motto as the backdrop INSDAG and IA Struct E welcome all the stakeholders in this seminar.

REGISTRATION PROCESS

Suitable for: Engineering Professionals, Industrial Plant Maintenance Engineers, Rehab Solution Providers
Registration Fee: Rs 2000.00 (including 18% GST)

STEP 1: INSDAG Bank Details -

GST NO.: - 19AAAAI0466P1ZA

Bank Name: UCO Bank, Kasba Branch

SB Account No. 08370100004683

Bank Address: Kasba, 170, Shanti Pally,
Chakraborty Para, Kolkata - 700107, W.B.

IFSC Code No.: UCBA0002081

MICR Code No.: 700028154



STEP 2: Kindly register by email to

insdag@gmail.com furnishing your following details:

Name:

Email:

Mobile No.:

INSDAG / IA Struct E membership No.

(for members):

About Indian Association of Structural Engineers (IAStructE)

The Indian Association of Structural Engineers (IAStructE) is a professional association whose membership comprises very prominent structural engineers from India. The Association has the prime responsibility, on the one hand to enhance the knowledge base and professionalism amongst engineers, while on the other, to look after their interests. IAStructE promotes Initial Professional Development (IPD) and Continuing Professional Development (CPD) courses for its members and likeminded professionals practicing in general civil and structural.

About Institute for Steel Development and Growth (INSDAG)

Institute for Steel Development and Growth (INSDAG) is a member-based non-profit making organization. The Institute primarily works towards the development of advanced design methodologies and technical marketing by expanding application of steel in different segments of industry, upgrading skills and know-how, creating awareness amongst potential users and communicating the benefits of steel vis-a-vis other competitive materials etc.

INSDAG has taken up the responsibility to facilitate revision of the code with active participation of IIT, Chennai, SERC, ANNA University and a number of Consultants / Fabricators / Prime Contractors etc.

SCHEDULE

09:00 – 10:00	Registration
10:00 – 10:30	Inaugural Address: Dr R Pradeep Kumar- President, IAStructE Address by Chief Guest: Shri Amarendu Prakash, Chairman-SAIL
10:30 – 11:00	Tea Break
11:00 – 12:00	Lecture 1: Repair and Retrofit of Steel Structures by Dr. S. R. Satishkumar, Professor-IIT, Madras
12:00 – 13:00	Lecture 2: Retrofitting of Structural Steel Sections using Carbon Fiber Reinforced Polymers and Cold-Formed Steel by Dr. M. K. Madhavan, Professor - IIT, Hyderabad
13:00 – 13:30	Lunch
13:30 – 14:30	Lecture 3: Health Assessment and Retrofit of Steel Structures with recent case studies by Shri Manish Bharti, CEO - Cortex Solutions
14:30 – 15:30	Lecture 4: Structural Integrity Assessment of Steel Structures through NDT&E and Retrofitting/Strengthening Measures by Dr G S Palani- Chief Scientist and Head TTRS, SERC Chennai
15:30 – 16:30	Lecture 5: Remaining Life Analysis (R.L.A.) of steel structure under Corrosion for an Uninterrupted performance and Designing New age steel structures to have Corrosion resistant and Major-maintenance Free Life (M.F.L.): Experience from Mauritius Metro Rail by Dr Sharvil Alex Faroz - Founder, IRM365
16:30 – 17:00	Concluding Tea

RESOURCE PERSONS

Dr. S. R. Satishkumar obtained his BE (Civil) from the College of Engineering, Pune, India in 1987. After a brief stint in Design and Construction, he went to IIT Bombay and got an M.Tech in Structural Engineering in 1992. He completed his Doctor of Engineering from Nagoya University, Japan in 1996. He then worked at NKK Corporation, a multi-national steel industry as a research engineer and did pioneering work on the seismic design and pseudo-dynamic testing of steel bridge piers for the Japanese Ministry of Construction. He joined IIT Madras, Chennai in September 1998 and is currently Professor and Head of the Structural Engineering Laboratory, Dept. of Civil Engineering, IIT Madras. He has been teaching Design of Steel Structures, Structural Dynamics and Earthquake Resistant Design for under-graduate and post-graduate students. He has conducted a number of short term courses in these areas for university faculty and consultants. He has guided a number of MS and PhD students and has several publications in National and International journals and conferences. He has co-authored three volumes titled Teaching Resources for the Design of Steel Structures for university faculty and has contributed extensively to the revision of the Indian Code IS 800. Dr. Satish is actively involved in carrying out research in the area of seismic design and testing.

Dr. M. K. Madhavan is a Professor in the Department of Civil Engineering, Indian Institute of Technology (IIT) Hyderabad, India. Prof. Madhavan teaches at both undergraduate and postgraduate levels, provides industry training by conducting short courses and seminars, assists practicing structural engineers by offering consultancy services, and leads the structural steel research group at IITH with the goal of enabling sustainable construction practices at home in India and around the globe. He obtained his Ph.D. from the University of Alabama at Birmingham, USA, a Masters's Degree from The National University of Singapore, Singapore, and an undergraduate degree from the College of Engineering Guindy, Anna University, Chennai. Prior to joining IIT Hyderabad, Prof. Madhavan worked as a Structural Engineer at Alabama Power Company, Birmingham, and is a Registered Professional Engineer (PE) in the State of Alabama USA.

Prof. Madhavan's principal research interests lie in the area of physical testing of structural members and systems, numerical modeling through the use of commercially available finite element packages, and the development of new design methods for steel-intensive structures. He has published about 60 peer-reviewed internationally reputed journals and holds membership in the "American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) Technical Administrative Committee on Metals" and in "ASCE SEI Cold-Formed Steel Members Committee". He is an Editorial board member of the Journal of Structures and is an Associate Editor for ASCE Journal of Structural Engineering. Prof. Madhavan is a Fellow of the American Society of Civil Engineers (ASCE), USA, a Fellow of the Institution of Civil Engineers (ICE), London, and is also the first Indian to be elected as a Fellow of ASCE's Structural Engineering Institute (SEI).

Shri Manish Bharti is a structural and diagnosis consultant since 2006 (B.E Civil Engineering 2006, Delhi College of Engineering) and a member of ACI (American Concrete Institutes). He is currently CEO of Cortex Construction Solutions Pvt. Ltd. which is leading private company in this domain and has been known for its innovative structural audit approach through the various diagnosis systems. His primary research interest lies in understanding the behaviour of structure, material characterization, development of diagnosis systems for all kinds of old structures and designing suitable repair and rehabilitation techniques. Instrumentation and load rating for the structural for the operation load. He has been involved in wide range of consultancy job for rehabilitation projects (more than thousand structures) from Industrial buildings, bridges to heritage buildings.

Consultancy Work - Structural Audit for Prestigious Structures from 2006

Writers building Kolkata, Jaisalmer Fort, Chattar Manzil, Lucknow, IIT Roorkee campus buildings, Structural Stability Certification for Industrial Buildings, Load rating of bridges, Upgradation and Residual life of heritage bridges for Railways, Safety and stability Certification, ITPO Conventional Center, Load Rating of HRBC Bridge

Patent

Aqua Penetracao water permeability tester equipment as per DIN1048 part5

Development of Mobile APP for Disaster Evaluation for NDMA & NHRCL

Published Book Survival of Kedarnath Temple: - Through the eye of Structural consultant.

Dr G. S. Palani is presently Chief Scientist at CSIR-Structural Engineering Research Centre, Chennai and has R&D experience of more than 34 years. He obtained his Undergraduate degree in Civil Engineering and post-graduate degree in Structural Engineering from PSG College of Technology, Bharathiar University, Coimbatore. His Doctoral degree is in Faculty of Engineering at Indian Institute of Science, Bangalore for the work on "Numerically Integrated MVCCI Technique for Fracture Analysis of Plates And Stiffened Panels", which was awarded Prof. A. K. Rao Gold Medal for the Best Ph.D. Thesis. His field of research interest include finite element analysis, fatigue and fracture analysis, steel structures, design and testing of transmission line and communication towers. His research has resulted in more than 90 papers in reputed International/National journals and about 125 papers in Conferences /Seminars/Symposia proceedings.

Dr. Sharvil Alex Faroz is the founder of IRM. He holds PhD in structural engineering from IIT Bombay. During his PhD, Dr Sharvil interviewed various civil asset owners and understood their challenges specifically regarding the life cycle challenges of such structures. Through this insight, his PhD focused on creating an applicable technology for evaluating the Remaining Useful Life of civil structures which help clients with decision making on Longevity and Rehabilitation. The company is based on this technology. IRM is helping clients to massively reduce the Risks and minimise the Operation & Maintenance cost of their civil structures and extending their service life. These assets include commercial buildings, bridges, refinery chimneys and more. The company has grown 7X since its inception.

Course Co-ordinator:

Mr. M. M. Ghosh

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