



Indian Association of Structural Engineers

COURSE ON

SUSTAINABILITY IN BUILT ENVIRONMENT

11th January 2025 till 15th February 2025

Every Saturday from 15:30 Hours to 18:00 Hours (IST) (through zoom webinar)



ABOUT THE COURSE

This course has been structured with the belief that it is no longer sufficient for the engineers working in construction industry to simply know a little bit about climate crisis and practically do nothing about it in their day to day business. It is now time to learn some key principles, skills, practicing and real-life application in projects. We are convinced that civil / structural engineers need to learn the basics about application to reduce GHG emission in their planning, design and construction. This is not a rocket science and can easily be learned with little effort. The course provides enough materials for you to get started.

This course is meant for those practicing structural engineers, academicians and engineers from construction industry who are still uninitiated and not sure as to how they can contribute in the war against climate crisis. This will help you to explore how to calculate carbon footprint for various design options and how to assess and compare design options against one another as part of a net zero design process.

The course will also have mechanism to monitor your progress. There will be real-life worked examples from infrastructure projects which will be shared with the participants. At the end of the course, there will be an assessment on proficiency for the participants.

ABOUT IAStructE

Indian Association of Structural Engineers (IAStructE) is a national body of structural engineers established with the objective to cater to the overall professional needs of structural engineers in India. The prominent thrust area of IAStructE is to ensure that the structural engineering fraternity in general and its members in particular, have the requisite technical knowledge and experience, updated on a continuing basis, to render professional service of high caliber to the society. A program of continuing education of civil and structural engineers in the design and practice of structural engineering has been formulated and is being implemented religiously.

HOW TO REGISTER

(Registration is open until seats are available)

**Register from the link: <http://iastructe.co.in/online-refresher-course.php>
and send the delegate details and payment details as shown in the step 1 & 2 given below**

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
State Bank of India(07196)
Branch Address: Flyover Market,
Defence Colony, ND 110024
IFSC: SBIN0007196
MICR: 110002034
SWIFT CODE: SBININBB382
GST NO.: 07AAATI3885P1ZZ

UPI ID : 10151200388@sbi



STEP 2: The details of the participant (Name, Designation, Organization, Email id, Mobile no.) along with the proof of payment shall be sent to iastructe@gmail.com to complete the registration. Students must send their valid student ID card (scanned) along with proof of payment. The registration link for each day's session shall be sent one day prior to the each session to the confirmed participants only. The members who will apply in the category of young engineers for an additional discount of 10% should send their DoB proof.

REGISTRATION FEE

IAStructE Members	: Rs 4,000/-* + 18% GST
Non Members	: Rs 6,000/-* + 18% GST
IAStructE Student members	: Rs 1,000/- + 18% GST
Students	: Rs 1,500/- + 18% GST
Foreign Nationals	: INR 10,000/-*

(Foreign nationals - 10% discount for members of MoU Associations, JSSI, IStructE UK, SEANeP)

** Additional 10% discount for Young engineer age upto 35 yrs*

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 during the entire course)

Proficiency certificate will be provided to those who will qualify the assessment test, which shall be conducted after concluding session

SPONSORSHIP OPTION

ENTITLEMENTS	DIAMOND INR 3,00,000 + 18% GST*	GOLD INR 2,00,000 + 18% GST*	SILVER INR 1,00,000 + 18% GST*
Presentation Slot	15 mins.	10 mins.	NA
Advertisement in SED (Quarterly journal of IAStructE published as soft copy)	One Colour Page (for four issues)	One Colour Page (for two issues)	One Colour Page (for one issue)
Advertisement in monthly Newsletter	One Colour Page (for six issues)	One Colour Page (for four issues)	One Colour Page (for two issues)
Complimentary Delegates	Six	Four	Two
Logo in Flier, Banner Company Profile to all delegates			

For any clarification, please contact the IAStructE Secretariat on

Email iastructe@gmail.com, Tel: 011-45794829, +919968299155

PROGRAM - COURSE ON “SUSTAINABILITY IN BUILT ENVIRONMENT”

Course Coordinator: Mr. Alok Bhowmick, Past President, IAStructE

Course Moderator: Mr. V. N. Heggade, Vice President (West), IAStructE

Dates: 11th January to 15th February 2025

(Timings 3:30 PM – 6:00 PM (IST) on each Saturday, webinar mode through zoom)

Lecture / Duration	TOPIC	POTENTIAL SPEAKER
DAY-1 (11.01.2025) : INAUGURATION & INTRODUCTION		
[10 mins]	Opening Remarks	Mr. Alok Bhowmick <i>Course Coordinator</i>
[10 mins]	About the Course	Mr. Manoj Mittal <i>Chairman, PD & TE Committee, IAStructE</i>
[10 mins]	Welcome Address	Prof. R. Pradeep Kumar <i>President, IAStructE</i>
[5 mins]	Introduction of Speakers	Mr. V. N. Heggade <i>Moderator</i>
Lecture 1 [45 mins]	Climate Change and its Impact on Built Environment	Prof. S. S. Chakraborty <i>Founder & former Chairman, Second Vivekananda Bridge Tollway Company Pvt. Ltd (SVBTC)</i>
Lecture 2 [45 mins]	Understanding Sustainable Development Goals	Mr. Rajit Sengupta <i>Associate Editor Down to Earth magazine,</i>
[25 mins]	Q&A	
DAY-2 (18.01.2025) : LIFE CYCLE IMPACT ASSESSMENTS		
[5 mins]	Introduction	<i>Moderator</i>
Lecture 3 [45 mins]	Life Cycle Concepts & Model For Buildings	Mr. Ashish Rakheja & Mr. Ashish K. Jain <i>Partners AEON Integrated Building Design Consultants LLP</i>
Lecture 4 [45 mins]	Sustainable Retrofitting Technologies with focus on Agro-industrial wastes and Plastics	Dr. Ajay Chourasia <i>Chief Scientist, CSIR-CBRI</i>
[15 mins]	Sponsor presentation	TBN**
[40 mins]	Q&A	
DAY-3 (25.01.2025 during 2:30 PM – 5:00 PM) : ROLE OF CODES, STANDARDS FOR SUSTAINABLE DEVELOPMENT		
[5 mins]	Introduction	<i>Moderator</i>
Lecture 5 [45 mins]	International Initiatives in Codes of Practices for Sustainability in Built Environment	Prof. (Dr.) Steve Denton <i>WSP's Head Civil Engineering in UK</i>
Lecture 6 [45 mins]	Role of Indian Standards towards Sustainability in Built Environment	Mr. Sanjay Pant <i>Dy Director General (Standardization-II), Bureau of Indian Standards (BIS)</i>
[15 mins]	Sponsor's presentation	TBN**
[40 mins]	Q&A	

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Lecture / Duration	TOPIC	POTENTIAL SPEAKER
DAY-4 (01.02.2025) : NET - ZERO MISSION		
[5 mins]	Introduction	<i>Moderator</i>
Lecture 7 [30 mins]	Carbon Footprint Calculations & Strategies for Achieving Carbon Neutrality in Building Sector	Mr. Abhijeet Kulkarni <i>Director – Structures Buro Happold</i>
Lecture 8 [30 mins]	Life Cycle Concepts & Model For Bridges And Infrastructure	Dr. N. Bandyopadhyay
Lecture 9 [30 mins]	Carbon Footprint Calculations & Strategies for Achieving Carbon Neutrality in Bridges and Infrastructure	Mr. V. N. Heggade <i>Founder & CEO DECon Complete Solutions</i>
[15 mins]	Sponsor’s presentation	TBN**
[40 mins]	Q&A	
DAY-5 (08.02.2025) : CLIMATE ADAPTATION		
[5 mins]	Introduction	<i>Moderator</i>
Lecture 10 [45 mins]	Climate Adaptation Strategies for Building Sector	Ms. Aditi Kulkarni <i>Associate Director - Sustainability BuroHappold Engineers (I) Pvt. Ltd.</i>
Lecture 11 [45 mins]	Climate Adaptation Strategies for Bridges & Other Infrastructure	Dr. Lakshmy Parameswaran <i>Chief Scientist (Retd.), CSIR-CRRI</i>
[15 mins]	Sponsor’s presentation	TBN**
[40 mins]	Q&A	
DAY-6 (15.02.2025) : PANEL DISCUSSIONS – CHALLENGES AHEAD FOR NET-ZERO MISSION & THEIR MITIGATIONS		
[5 mins]	Introduction	<i>Moderator</i>
Lecture 12 [30 mins]	Sustainable affordable houses	Dr. Deepak Bansal <i>Regional Chief J&K & Ladakh, HUDCO</i>
Lecture 13 [30 mins]	Carbon Capture Utilisation and Storage	Prof. R Pradeep Kumar <i>President, IAStructE & Director, CSIR-CBRI</i>
[60 mins]	Panel Discussion & Online Tests for Issuing Proficiency Certificate to Participants	
[10 mins]	Closing Remarks & Vote of Thanks by Course Coordinator	Mr. Alok Bhowmick

**To be notified

SPEAKERS

Prof. S S Chakraborty, an eminent civil and structural engineer, is the Founder Chairman of Bengal Faith Healthcare Pvt. Ltd, Founder and former Chairman, Second Vivekananda Bridge Tollway Company Pvt. Ltd (SVBTC) and Chairman-Emeritus Consulting Engineering Services (India) Private Limited–CES. Many of his designs have contributed to paradigm shifts and establishing precedents through innovations. Government of India awarded him a post-graduate scholarship in Germany and U.K. for “long-span bridges and roofs”. With over six decades of experience, Prof. Chakraborty has been involved in the design and development of several iconic long-span bridges both in India and abroad, including the Vidyasagar Setu, Naini Bridge, and Nivedita Setu etc. Institution of Civil Engineers – ICE (UK), the world’s oldest engineering learned body, of which Prof. Chakraborty is a Fellow, awarded him Gold Medal 2007 for “Civil Engineering Excellence”. He has been the recipient of “Life Time Contribution Award in Engineering 2011” by INAE, the apex body of eminent engineering professionals.



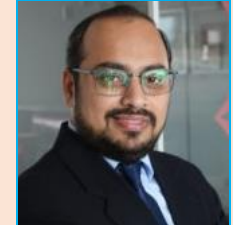
Mr. Rajit Sengupta, *Associate Editor Down to Earth magazine* is a climate journalist and media trainer with over 15 years of experience. He is currently the associate editor with the Down to Earth magazine in New Delhi, where he leads the climate data centre. He is also the author of State of India's Environment in Figures, the only data driven annual book on climate in India and India's Atlas on Disasters.



Mr. Ashish Rakheja is Managing Partner at AEON has a twenty Eight years of work experience. He specializes in high-performance buildings and has been actively involved in leading design activities of electro-mechanical services for ten Net Zero Energy Buildings and over forty Platinum rated green projects in India. He is spearheading the green building movement in India in capacity of role as Chairman, Technical Committee of Indian Green Building Council (IGBC) and certified Trainer.



Mr. Ashish K Jain is Partner at AEON and leads Sustainability & Green Building business. He has 18 years of comprehensive work experience in the field of Green Buildings, Sustainability, BIM, Interior Design and Architecture for projects across different countries including India, USA, Europe & Middle East. He has been leading Sustainability Groups in India and Middle East.



Prof. (Dr.) Steve Denton, FEng FICE FStructE, is WSP’s Head of Civil Engineering in UK, leading a unit of over 750 staff. Steve’s expertise and experience span many facets of engineering and strategic consultancy, research and construction. He is an internationally recognised expert in bridge engineering and a global leader in the development and implementation of design standards. Steve is the Chairman of CEN/TC 250, the international committee with overall responsibility for the Structural Eurocodes. In this role, he is leading the development of the second generation of the Eurocodes, which is the largest international standardisation programme ever of its type. He is also a visiting Professor at the University of Bath, a trustee of Clifton Suspension Bridge Trust and a Non-exec Director of CIRIA.



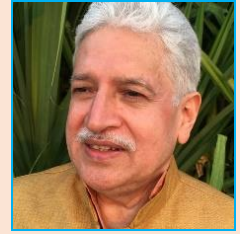
Mr. Sanjay Pant, *Dy Director General (Standardization-II), Bureau of Indian Standards (BIS)* did his Bachelor in Engineering in Civil Engineering discipline with Honours in 1987 from Malviya National Institute of Technology, Jaipur. He has around 35 years of experience as a Scientific Officer in the Bureau of Indian Standards (BIS). He served in the standards formulation and conformity assessment activities of the BIS in the field of Civil Engineering and Buildings. Mr. Pant has written/presented number of papers/lectures in national/international journals/seminars relating to sustainability, cement, concrete, various building materials, construction practices, safety, National Building Code of India, fire safety, disaster mitigation, building and plumbing services, etc.



Mr. Abhijeet Kulkarni is Director- Structures at Buro Happold. Prior to joining the firm, Abhijeet was based in the United Arab Emirates (UAE) for 17 years, working on a variety of projects, ranging from high-rise towers and complex structures, to structural forensics and industrial buildings. As structural lead, Abhijeet has been instrumental in delivering a diverse range of projects with demanding time scales in a competitive market.



Mr. V. N. Heggade, an eminent Bridge & Structural engineer has Masters in Construction & Business Management with experience of above 40 years. He was Executive Director of Gammon and CEO of STUP Consultants Pvt. Ltd. before starting his own venture – DECON Complete Solutions. He is a member of various IRC (Indian Roads Congress) and BIS (Bureau of Indian Standards), fib & IABSE committees/Task Groups. Apart from being a members of the numerous academic boards of universities and editorial boards of journals, Mr. Heggade is also a Fellow (FNAE) of Indian National Academy of Engineering (INAE)



Dr. Ajay Chourasia is a Chief Scientist & Head of Structural Engineering and 3D Concrete Printing Group at CSIR-Central Building Research Institute, Roorkee. His area of interest encompasses precast buildings, structural dynamics, structural health monitoring; experimental investigation of buildings; earthquake resistant design, construction & retrofit confined masonry, seismic vulnerability/ post-earthquake damage assessment, precast buildings, 3D concrete printing, numerical analysis, historical construction etc.



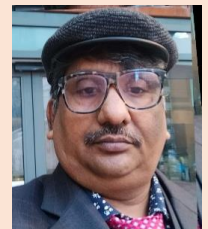
Ms. Aditi Kulkarni has been working in the field of Sustainability and Climate Change for over 20 years. Currently serving as the Associate Director of Sustainability at Buro Happold, Aditi leads sustainability services across India, focusing on carbon accounting, ESG policies, climate change risk mitigation, and green financing. She is adept at implementing the Task Force on Climate-related Financial Disclosures (TCFD) recommendations to help organizations identify and manage climate-related risks and opportunities. Aditi's expertise in climate adaptation strategies for the built environment includes enhancing building resilience to extreme weather events, integrating nature-based solutions, and promoting sustainable urban planning. Her work ensures that buildings are not only compliant with global standards but also resilient to climate impacts, contributing to a sustainable future.



Dr. Lakshmy Parameswaran holds a PhD (Civil Engineering) from IIT, Roorkee and has more than 37 years of professional experience which includes research, teaching and consultancy. She was a Chief Scientist at Bridge Engineering and Structures Division of CSIR- CRRI, New Delhi and a Professor of Engineering Science at AcSIR. Her area of research includes wind engineering, bridge engineering and sustainable construction materials.



Dr. Deepak Bansal is currently serving in HUDCO (Housing & Urban Development Corporation Ltd) a Central Public Sector organization of Government of India, as Regional Chief of J&K and Ladakh in its Jammu Office in India. He is having more than 3 decades of experience in Civil Engineering in Built Environment. His main focus of work is sustainable built environment, especially housing through intervention of structural engineering, alternative construction materials and maintaining local vernacular construction practices, to promote local construction materials, skill up gradation and economic development with reduced carbon footprints



Prof. R. Pradeep Kumar, Director, CSIR-Central Building Research Institute, Roorkee is a structural engineer with 22 years of experience in teaching, research, and administration at IIIT Hyderabad. His research interests are earthquake safety assessment and retrofitting of buildings. He has developed the Applied Element Method (AEM) to solve crack initiation and propagation in near-fault rupture phenomenon and reduced computation time. He has extended this method to study collapse behavior of structures subjected to blast loading.

