



MESSAGE FROM THE PRESIDENT



Dear Friends

I trust this message finds you all in great health and high spirits. I extend my warm greetings with each one of you and your family.

We have faced two major disasters in the Himalyan region in the month of August. One at Dharali, Uttarakhand and the other one in Kishtwar district of Jammu & Kashmir. Both these man-made disasters are reflection of nature's fury and a grim reminder to mankind to mend our ways of development. Global warming is supercharging our monsoons with extreme rain, while on the ground, our own policies of cutting hills, unscientific, unsustainable and reckless construction, and choking rivers for so-called 'development' are destroying our natural defences. The Himalayas are no longer treated as ecosystems, they are treated as commodities to be bought, sold, and exploited, no matter the cost.

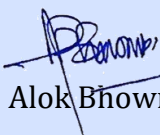
These repeated tragic incidences happening around us compels us to think how we can abate repeat of such tragedies in future? How we can bring in some accountability on the authorities who are responsible for maintaining this fragile eco-system. We also need to think how we can consider the impact of climate change in our structural engineering profession? On the mitigation side, how can we reduce the carbon footprint of our constructions with innovative concepts, methods and materials? How to think in terms of reusing and transforming structures rather than demolition / reconstruction? Regarding the adaptation to climate change, how to quantify the short, medium and long-term impact on structures?

Coming to the activities of IAStructE over last one month, the month of August saw a number of meetings held by various professional committees to further the activities of IAStructE. Our online Refresher course on "Conceptual Structural Systems Planning and Design of Buildings" had commenced w.e.f 16th August 2025. Besides the training course, two webinars were held this month which were very rich in content and was attended by very many engineers.

Once again I take this opportunity to wish you all a very happy and enjoyable festive season ahead. May we continue to achieve every milestone that brings pride to our profession and contribute to building a healthier and stronger nation.

Warm regards!

Best Wishes


Alok Bhowmick

FROM THE EDITOR'S DESK

Respected Esteemed Members,

It gives me great pleasure to present the August 2025 edition of the IAStructE Newsletter. Each issue reflects the vibrancy of our professional community and our collective journey combining technological advancements, knowledge-sharing and the realities that constantly remind us of the responsibility we hold as structural engineers.

The past month has been marked by enriching initiatives. The webinar on “When Hard Hat Meets Soft Tools” showcased how digital tools and programming are reshaping engineering workflows, inspiring younger professionals to embrace innovation. The online refresher course on Conceptual Structural Systems Planning and Design of Buildings attracted wide participation and appreciation, reinforcing the importance of strong fundamentals. The lecture on Steel–Concrete Composite Bridge Decks and the Stainless Infraverse conclave further created opportunities to exchange specialized knowledge and address practical challenges in materials and performance.

Equally inspiring are the activities of our student chapters. The lectures organized by the IAStructE–IIIT Hyderabad Student Chapter shed light on crucial issues such as seismic risk mitigation and damage gradation in masonry buildings. These engagements not only foster academic professional collaboration but also nurture the next generation of engineers who will shape a safer and more resilient built environment.

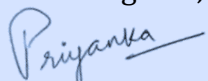
This month, however, our reflections are also shaped by the tragic events in Wayanad, Dharali and Kishtwar. These incidents highlight the vulnerability of our ecosystems and the urgent need for sustainable and accountable development. They remind us that our profession must continually align its designs, policies and practices with resilience, climate responsiveness and environmental stewardship.

In line with this, the current issue features an article on Smart Structures and Sensor-Integrated Monitoring Systems, showcasing how sensors, artificial intelligence and digital twins are transforming structural health monitoring. These innovations are helping us shift from reactive maintenance to predictive and proactive frameworks, reaffirming the profession’s pivotal role in safeguarding society while embracing technological opportunities.

Alongside technical insights, this edition also shares updates on forthcoming events, accreditation programs, publication opportunities and members’ achievements. Together, these reflect IAStructE’s vision of professional excellence, innovation and collective growth.

As editors and professionals, our shared responsibility is to ensure that every milestone we achieve contributes to safer, more resilient and sustainable structures. Let us continue to learn from challenges, harness technology and uphold the highest standards of excellence that define our profession.

Warm regards,



Dr. Priyanka Singh



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Events Organized:

1. Webinar on *When Hard Hat Meets Soft Tools*

A webinar on “When Hard Hat Meets Soft Tools” was organized on 22 August 2025. The session was delivered by Mr. Prateek Jain, Co-founder, Force Structural Engineers Pvt. Ltd., and was ably moderated by Mr. Umesh Rajeshirke, Fellow & Governing Council Member, IAStructE. Mr. Sandeep Pattiwar, Chairman, IAStructE PDTE Committee, joined as the panelist. In his presentation, Mr. Jain shared the journey of adopting advanced software and programming to transform traditional engineering workflows. He highlighted the use of tools such as Sofistik, IdeaStatica, and Tekla, which are making design and drawing processes faster, more accurate, and less error-prone. The webinar provided valuable real-world insights on leveraging modern technology to streamline workflows and encouraged young engineers to embrace innovation, think differently, and focus on what truly matters in the design and construction process. The recorded lecture can be seen from the following YouTube link: <https://youtu.be/61FMmGKE6AI>

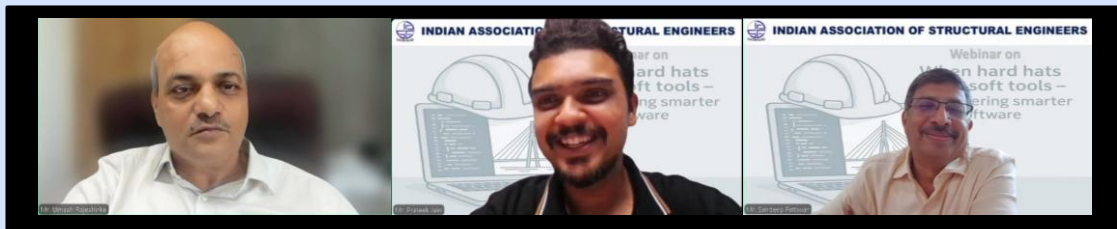


Fig 1: Glimpses of the Lecture

2. Online Refresher Course on *Conceptual Structural Systems Planning and Design of Buildings*

IAStructE successfully launched an online Refresher Course on “Conceptual Structural Systems Planning and Design of Buildings” on August 16, 2025. The course, scheduled to continue until September 13, 2025, is being conducted in webinar mode through Zoom, with sessions held every Saturday from 3:30 PM to 6:00 PM (IST). The course is being coordinated by Prof. Shilpa Pal, Honorary Secretary, IAStructE, with Prof. Vasant Matsagar as Co-Coordinator. The inaugural session commenced with opening remarks by the Course Coordinators, followed by a Welcome Address by Mr. Alok Bhowmick, President, IAStructE, and an introduction to the course by Mr. Sandeep Pattiwar, Chairman, Professional Development & Technical Events Committee, IAStructE. Designed with the objective of strengthening the fundamental understanding of conceptual structural system planning among practicing and aspiring structural engineers, the course has received wide appreciation and enthusiastic participation of 135 delegates. The course is being proudly sponsored by Dextra India Pvt. Ltd. and MIDAS Research & Development Centre India Pvt. Ltd. So far, three sessions have been successfully conducted, featuring eminent speakers who delivered insightful lectures on diverse topics:

- *Overview and Conceptual Planning* – Mr. Manoj Mittal, Civil & Structural Engineering Consultant & Past President, IAStructE
- *Criteria for Selection of Structural Systems* – Mr. Abhijeet Kulkarni, Director–Structures, Buro Happold
- *Complying Code Provisions* – Mr. Arunkumar S., Head, CED, Bureau of Indian Standards (BIS)
- *Structural Systems and Planning for Low to Mid-Rise Structures* – Dr. S. P. Anchuri, Vice President (South), IAStructE and Chief Consultant, Anchuri & Anchuri Associates
- *Importance of Concept Design in Achieving Optimized and Efficient Structural Systems for Tall Buildings* – Mr. Majid Hashmi, Managing Director, KMH Engineering

- *Case Studies Highlighting the Importance of Material Selection at Conceptual Planning and Design Stage* – Dr. Abhay Gupta, Director, Skeleton Consultants Pvt. Ltd.
- *Soil Conditions & Foundations with Case Studies* – Mr. Ravi Sundaram, Director, Cengrs Geotechnica Pvt. Ltd.
- *FEM solution for Tall Building - In compliance with Indian Standard* - Mr. Anmol Saxena, Sr. Technical Support Engineer, MIDAS Research & Development Centre India Pvt. Ltd.

The course has received an overwhelming response with a total of 135 participants attending. It continues to provide valuable knowledge, case studies, and practical insights that participants can apply in real-world structural engineering practices.



Fig 2 Glimpses of the Lecture

3. Lecture on Steel-Concrete Composite Bridge Decks: Common Defects, NDTE & Repair Strategies

An online Lecture on "Lecture on "Steel-Concrete Composite Bridge Decks: Common Defects, NDTE & Repair Strategies" was successfully held on August 28, 2025. The session was delivered by Dr. Lakshmy Parameswaran, former Chief Scientist at Bridge Engineering and Structures Division of CSIR- CRRI. The lecture aimed to enhance understanding of the common defects and repair methods in steel–concrete composite bridge decks, and demonstrated how the use of Non-Destructive Testing & Evaluation (NDTE) can help engineers assess deck conditions, identify causes of defects, and prioritize repairs to ensure structural integrity, safety, and extended service life. The recorded lecture can be seen from the following YouTube link:

https://youtube.com/live/sT_BRcOsBLU?feature=share

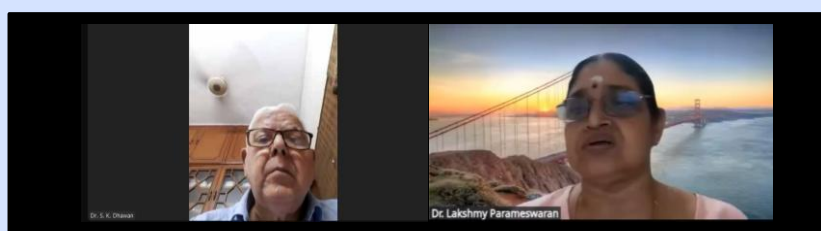


Fig 3: Glimpses of the Lecture

4. *Stainless Infraverse – A Conclave for India’s Next-Gen Building Structures organized by Jindal Stainless Ltd. in collaboration with IAStructE.*

Stainless Infraverse – A Conclave for India’s Next-Gen Building Structures was successfully organised by Jindal Stainless Ltd. in collaboration with IAStructE on 29th August 2025 at Holiday Inn, Aerocity, Delhi. Dr. Vinod Jain was honoured as an *Eminent Engineer*. The event was presided over by VP (North) Er. I. S. Chauhan and was attended by Professor Dulal Goldar, Dr. S. K. Dhawan (GC Member, IAStructE), among others. In the keynote speech, Professor Ashwin Kumar from IIT Roorkee presented his experimental work on the triggering and extent of rusting in rebars, which causes distress in RCC and steel structures. During the panel discussion, moderated by Professor Ashwin, panelists Dr. Vinod Jain, Er. Manish Gupta, and Er. Ajay Gupta discussed the causes of distress in buildings, highlighting issues related to quality control, material selection, and the use of appropriate ingredients.



Fig. 4 Glimpses of the Event

IAStructE Student Chapter Activities

IAStructE – IIIT Hyderabad Student Chapter Event:

1. Lecture on Lessons Learned: Risk Mitigation Strategies for the Future

Date: August 12, 2025

Speaker: Dr. Hemant Kaushik, Professor, Department of Civil Engineering, IIT Guwahati.

The IAStructE–IIIT Hyderabad Student Chapter of the Earthquake Engineering Research Centre (EERC) successfully hosted a distinguished Guest Lecture on 12th August 2025, titled “Lessons Learned: Risk Mitigation Strategies for the Future”, delivered by Dr. Hemant Kaushik, Professor, Department of Civil Engineering, IIT Guwahati. Dr. Kaushik



Fig. 5 Glimpses of the Event

commenced his lecture with a comprehensive overview of the damage patterns observed in various building typologies during past earthquakes in India and other seismic regions worldwide. He emphasized that masonry continues to be one of the most prevalent construction materials in the country, accounting for more than 80% of India’s building stock. Using seismic zone maps, he illustrated the relationship between population distribution and the concentration of unreinforced masonry (URM) structures across the nation. The lecture provided an in-depth discussion on the principal masonry building systems found in India, namely masonry-infilled reinforced concrete (RC) frames, unreinforced masonry (URM), confined masonry (CM), and traditional construction forms such as Assam-type houses. Dr. Kaushik stressed the significance of understanding the seismic performance of these systems, particularly in densely populated and high-hazard zones. A notable

segment of the session was the presentation of experimental studies conducted on RC, URM, CM, and Assam-type houses. The findings included the impact of variations in infill materials, strength levels, and architectural configurations. Detailed insights into lateral load behaviour, drift characteristics, and the influence of design elements such as window openings were also shared. The highlight of the lecture was a comparative performance assessment of the different structural systems, supported by normalized response graphs. These demonstrated distinct variations in load-bearing capacity, deformation patterns, and failure mechanisms, offering a clear perspective on their relative seismic resilience. In his concluding remarks, Dr. Kaushik emphasized the imperative of risk mitigation through improved construction practices, strict compliance with building codes, and judicious selection of materials. He further advocated for the thoughtful integration of traditional and vernacular housing systems as resilient, context-sensitive solutions for earthquake-prone regions. The lecture concluded with an engaging interactive Q&A session, where participants raised pertinent queries on structural performance and seismic safety. Dr. Kaushik responded with clarity and depth, further enriching the discourse. Overall, the event was highly informative and impactful, providing students, scholars and professionals with valuable insights into seismic risk reduction and the future of earthquake-resistant construction in India. **YouTube Link:** https://youtu.be/_L3TMJBb0tA

2. Lecture on Seismic Damage Gradation for Structural Brick Masonry Buildings

Date: August 26, 2025

Speaker: Dr. S. R. Balasubramanian, Principal Scientist, CSIR-SERC, Chennai

The IAStructE–IIIT Hyderabad Student Chapter organized an expert lecture on “Seismic Damage Gradation for Structural Brick Masonry Buildings” on 26th August 2025 in online mode. The lecture was delivered by Dr. S. R. Balasubramanian, Principal Scientist, CSIR-SERC, Chennai. The session provided an in-depth discourse on advanced

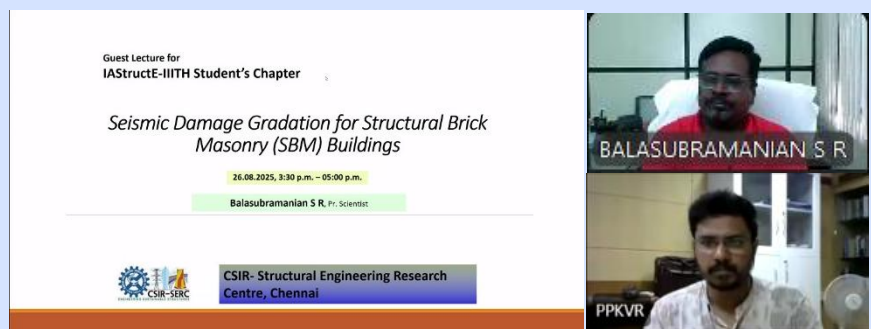


Fig. 6 Glimpses of the Event

methodologies for earthquake damage assessment and structural modelling of masonry buildings. Dr. Balasubramanian began by highlighting the limitations of subjective damage classifications such as “minor” and “severe,” and emphasized the necessity of adopting objective parameters including crack width, volume loss, and story drift. He particularly underscored the significance of story drift, critiquing the use of fixed damage thresholds and advocating instead for deformational control, which provides a more precise framework for damage assessment. In this context, he introduced the concept of story shear modelling as a valuable tool to evaluate the seismic response of building components and to facilitate cost-effective repair strategies. The lecture further explored failure mechanisms in masonry structures, with distinctions drawn between sliding shear modes and diagonal tension modes. Dr. Balasubramanian stressed the importance of deriving capacity curves for individual components, obtained by multiplying displacement values with utility ratios, and explained the procedure for aggregating these into a total capacity curve for the entire structure. He elaborated on the non-linear behaviour of capacity curves, noting that the weakest link within a subsystem typically undergoes plastic deformation, thereby influencing displacement responses. Clarifications were also provided on the differential behaviour of forces and displacements in parallel and series systems, with special reference to sliding, rocking, and diagonal tension mechanisms in masonry. During the interactive discussion, Dr. Balasubramanian addressed

pertinent queries regarding the reliability of drift ratios in real-world assessments, retrofitting strategies informed by the demand and capacity relationship, and the criteria governing allowable opening limits in masonry walls. In conclusion, the lecture offered a comprehensive perspective on seismic damage gradation for brick masonry buildings. Dr. Balasubramanian's scholarly insights on deformational control, failure mechanisms, and dynamic modelling contribute significantly to advancing the understanding of seismic resilience and serve as a valuable guide for the development of effective retrofitting strategies in masonry structures.

Youtube Link: <https://youtu.be/JNJPtY3bVRQ>

Forthcoming Events

1. Webinar on “Challenges in Design & Construction of Underground Cut & Cover Box Stations of Chennai Metro Phase-2 Corridor 3

IAStructE will be organizing a webinar on “Challenges in Design & Construction of Underground Cut & Cover Box Stations of Chennai Metro Phase-2 Corridor 3” on **September 11, 2025, at 4:00 PM (IST)**. The session will be delivered by **Mr. Chiranjib Sarkar, Principal Engineer – GEOCONSULT India Pvt. Ltd.** He will present a case study from **Chennai Metro Phase-II**, focusing on the design strategies and challenges faced in the construction of underground metro stations in **mixed ground conditions**. There is **no registration fee** for this webinar.

Registration link: https://us02web.zoom.us/webinar/register/WN_kyay9j7ZRKmwPGXPw68pQA

Articles

Tragedies at Wayanad, Dharali and Kishtwar Crying for Accountability from Authorities

by

Alok Bhowmick, President IAStructE



Go back in your memories to July 30, 2024: A devastating landslide in Wayanad, Kerala, wiped out several villages in the Western Ghats, killing hundreds of people and causing massive loss of property.

Fast forward to August 5, 2025: Flash floods in Uttarakhand wiped out a village called Dharali, pushing it under the debris. About 50 people died and scores are missing.

Fast forward again to 14th August 2025; Flash floods took place in Chashoti village, Kishtwar district of Jammu and Kashmir where many people lost their lives.

In all these cases, apart from loss of lives, the indirect losses are immense impacting the economy, society, and well-being. All these series of deadly landslides / cloudburst have once again brought into focus the vulnerability of our hills to extreme weather events like flash floods, landslides, and avalanches. It is clear that unless mitigative and adaptive measures are taken, these incidences will only increase in frequency in times to come.

We still do not have proper understanding about the cause of last two tragedies which occurred this month (August 25). So far the tragedy remains unexplained, with no concrete evidence of cloudbursts or glacial lake breaches in the reports which are available in public domain. Meteorological data is sparse, and experts are divided on the causes, highlighting the challenges of weather monitoring in the Western Himalayas. The authorities and society — seem to have learnt very little from these tragedies. The context and the outcomes remain devastatingly the same. And, past records seem to suggest that unless we are shaken by a strong political will to address this issue (so far we have not been shaken), we are not likely wake up to similar looming disasters in the future either. In the Himalayas or in the Western Ghats, extreme rainfall events will continue to trigger more landslides, avalanches or flash floods; a slice of humanity will be consumed by the debris, people and their settlements will perish. We will move on.

The Landslide Atlas of India (LAI) prepared by the Indian Space Research Organisation gives us districts and precise locations where landslides will occur in the future. Using past data, satellite images and other space data, the LAI gives a framework to address landslide vulnerability in a changing climate. That is of-course applicable in case the authorities and the political elite heed scientific advice.

What was Dharali could have been any other village. The triggers are not natural; they are man-made. Investigation, if carried out honestly, will reveal that the authorities ignored repeated warnings, violated eco-sensitive zone norms and pushed for an unscientific road expansion in the geologically fragile zone around these areas of tragedy. For example, in case of Dharali disaster, the Bhagirathi Eco-Sensitive Zone notification was grossly violated, allowing construction within 100 metres of the Kheer Ganga's midline, even though any infrastructure on steep slopes is banned. Dharali expanded virtually to the stream's edge, with hotels and resorts built on unstable deposits — all in defiance of Uttarakhand's Flood Plain Zoning Act, the Namami Gange Programme notification, and guidelines issued by the National Green Tribunal.

The ambitious Char Dham road widening project, which has triggered several landslides in the Himalayan ecosystem, has rendered the avalanche-prone slopes unstable by piercing through old landslide debris and marking for felling 6,000 mature deodar trees. More than 1,000 people have died in such calamities in Uttarakhand in a decade. This is beside the loss of property and irreversible damage to the eco-sensitive zone.

In all three landslide-prone ecosystems, there is a feverish push for massive deforestation, widening of roads, construction of tunnels and new highways, unplanned urbanisation and industrialisation,

and quarrying and mining. Report after report has noted the violations of the existing guidelines and notifications and forewarned about possible disasters.

Unless the state and the Central governments mend their ways and common people enforce the laws of the nature strictly, the annual tragedy routine will not stop.

Precautionary measures were not taken despite early warnings issued by the Meteorological Department about severe rainfall, cloudbursts, and flash floods in the higher reaches of the Jammu region. Greater coordination between government departments, NGOs, and civil society groups to frame and implement climate adaptation and mitigation strategies is the need.

Smart Structures and Sensor-Integrated Monitoring Systems: A Review of Emerging Trends in Structural Engineering

by

**Dr. Priyanka Singh
Amity University, Noida**

Abstract

The demand for safer, sustainable and resilient infrastructure has accelerated the adoption of smart technologies in structural engineering. Smart structures, equipped with sensor-integrated monitoring systems, enable real-time data acquisition and decision-making for improved health management. This paper reviews recent developments in smart structures, focusing on sensor technologies, monitoring frameworks and applications across bridges, high-rise buildings, tunnels and dams. Key benefits such as early damage detection, extended service life and sustainability are highlighted, along with challenges including high costs, data complexity and standardization. Future directions emphasize artificial intelligence, digital twins and self-powered sensors. Sensor-integrated monitoring systems are poised to shift structural engineering from reactive maintenance to predictive frameworks, enhancing resilience and sustainability.

Keywords: Smart Structures; Structural Health Monitoring (SHM); Sensors; Artificial Intelligence; Digital Twins; Sustainable Engineering

1. Introduction

Conventional structural engineering has relied on prescriptive codes, manual inspections and reactive maintenance. However, rapid urbanization, increasing climate-related hazards and the push for sustainability demand innovative approaches. Smart structures integrating sensors, data analytics and communication technologies offer a transformative solution by enabling continuous monitoring and proactive management. Sensor-integrated monitoring systems allow for early detection of damage, real-time responses and optimized life-cycle performance. This article reviews their principles, applications, challenges and future potential.

2. Literature Background

The concept of Structural Health Monitoring (SHM) emerged in the late 20th century, initially applied in aerospace and civil engineering using vibration-based methods and wired sensors. Recent advancements include wireless sensor networks, fiber optic systems and IoT-enabled devices (Lynch & Loh, 2006; Farrar & Worden, 2012).

Recent studies emphasize the role of artificial intelligence in predictive maintenance and anomaly detection (Hou et al., 2021). Digital twins further enhance decision-making by coupling real-time

data with simulation models (Tao et al., 2019). Despite these advances, large-scale SHM deployment remains limited by cost, data management and standardization challenges.

3. Sensor Technologies in Smart Structures

Sensors are central to smart structures, capturing structural and environmental responses. Strain gauges and piezoelectric sensors measure localized deformations, while accelerometers record vibrations and seismic responses. Displacement sensors track deflections and settlements and environmental sensors monitor temperature, humidity and chemical exposure factors affecting material degradation. Fiber optic sensors, known for precision and distributed sensing, are increasingly applied in long-span bridges, tunnels and dams. Together, these technologies create intelligent, self-assessing systems that enhance reliability and safety.

4. Structural Health Monitoring Framework

A modern SHM framework integrates several stages. Sensors installed at critical locations collect real-time data, which is digitized through data acquisition systems. The processed data is analyzed using statistical methods, finite element calibration, or AI-based algorithms for anomaly detection. Communication networks, often wireless and cloud-based, enable secure data transfer and remote access. Finally, decision-support platforms, dashboards, visualizations and digital twins help engineers interpret data for maintenance, retrofitting and emergency responses. This framework shifts infrastructure management from reactive to predictive.

5. Applications of Smart Structures

Smart structures have broad applications. Bridges such as the Tsing Ma Bridge (Hong Kong) and Millau Viaduct (France) employ thousands of sensors to monitor traffic loads and wind effects. High-rise buildings, including the Burj Khalifa (UAE), use accelerometers and wind sensors to assess performance under lateral loads. Tunnels and underground structures rely on deformation and gas sensors for safety monitoring, while dams adopt fiber optic technologies to track seepage and structural movements. Large-span roofs in airports and stadiums also utilize SHM to prevent excessive deflections or failures. These applications demonstrate the versatility of smart monitoring in ensuring structural safety and resilience.

6. Benefits of Smart Structures

The integration of SHM offers several benefits. Early detection of damage prevents catastrophic failures and reduces risks, while condition-based maintenance lowers costs compared to fixed schedules. Real-time monitoring improves disaster preparedness during earthquakes and extreme weather. Timely interventions extend the service life of structures, reducing the need for costly retrofits. Moreover, optimized maintenance practices promote sustainability by reducing material use and carbon footprint. Importantly, SHM data informs the development of performance-based design codes, fostering innovation in structural engineering.

7. Challenges

Despite its promise, SHM adoption faces barriers. High initial investment remains a concern, especially for large-scale systems. The vast datasets generated create challenges in storage, processing and timely interpretation. Sensor durability is another issue, as exposure to harsh conditions may compromise accuracy. The lack of global standards limits consistency in implementation, while cybersecurity risks threaten IoT-based monitoring systems. Furthermore, the interdisciplinary nature of SHM requires engineers to acquire expertise beyond civil engineering, including electronics and data science. Addressing these challenges is essential for widespread adoption.

8. Conclusion

Smart structures with sensor-integrated monitoring systems represent a transformative direction for structural engineering. By enabling proactive maintenance, enhancing safety and supporting sustainable infrastructure, SHM provides significant advantages over traditional approaches. While challenges remain, future innovations in AI, digital twins and self-powered sensors are expected to accelerate adoption. For the engineering community, embracing smart structures is not only an opportunity but a necessity to meet the demands of modern infrastructure.

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IAStructE Social Media accounts

Let's get "*****DIGITIZED*****"

Please follow us on all major media platforms. For joining us, below mentioned links to be pasted in browser. Let's join hands together to promote the profession of Civil Engineering.

1. **on TWITTER** as **IAStructE**: -<https://twitter.com/iastructe>
2. **on Facebook** as **IAStructE**: -<https://www.facebook.com/IAStructE-100114022302316>
3. **on LinkedIn**: -The group is defined as Indian Association of Structural Engineers-IAStructE
<https://www.linkedin.com/groups/6646248/>
4. **on YouTube** as **IAStructE Webinar**: - Subscribe and press bell icon
https://www.youtube.com/channel/UCvv7ojXO9Dxq1WtP_yHZTKw

Call for papers for the theme-based issue of SED journal:

SED Editorial Board invites article contributions for the forthcoming issues of the Structural Engineering Digest on the following themes, which shall be published in e-book format.

1. **Tall Buildings & Structures**
2. **Role of Digital Technology in Structural Engineering**
3. **Codes in Structural Engineering – Developments & Needs for Change.**

Interested professionals may send their full paper on any of the above issues along with their photograph and brief resume at the earliest convenience. Articles are invited from i) Members of IAStructE; ii) Specialists in the field even though they are not members of IAStructE.

Call for papers for CROSFALL:

CROSFALL is a newsletter created by Indian Association of Structural Engineers (IAStructE). Its purpose is to share lessons learnt from structural failures, near-misses and safety concerns. The objective is to help create a safer built environment, enhance industry knowledge, and mitigate future risks by sharing real-life failure case studies with expert analysis. We expect professionals reading these newsletters to use these informations in their design to make safer structures. CROSFALL is greatly encouraged and inspired by CROSS (Confidential Reporting on Structural Safety), UK, which is a collaborative effort of three institutions (IStructE, ICE and IFE). There is however no connection between CROSFALL-IAStructE and CROSS-UK.

CROSFALL Editorial Board invites reports for the forthcoming issues. Interested candidates can send the reports about structural safety issues related to all types of structures (i.e. buildings, bridges, tunnels, industrial structures etc.) in the built environment. The reporting can be related to:

- *Structural failures,*
- *Poor Design and Detailing, Lack of Seismic Safety in planning*
- *Safety concerns about high risk erection schemes at Site; Safety concerns on Temporary Works*
- *Near misses, or observations relating to procedures followed at site, which may lead to failures or collapses.*
- *Unethical practices in the profession*

Reports do not have to be about current activities so long as they are relevant. Small scale events are equally important - they can be the precursors to more major failures. Report might relate to a specific experience or it could be based on a series of experiences indicating a trend. No concern is too small to be reported and conversely nothing is too large. Reports should aim to include information that will help others to learn from the safety issue identified.

To submit the report please go through the following link: www.iastructe.co.in/crosfall.php

Advertisement Tariffs:

Structural Engineering Digest (being published in PDF format)

	Rates Per issue	Discounted rate at 20% for 4 consecutive issues	Advertisement Size
Full Page	Rs. 20,000/- + 18% GST	Rs 64,000/- + 18% GST	9.5-inch x 7 inch

IAStructE Monthly Newsletter (being published in PDF format)

	Rates for advertisement	Advertisement Size
Full Page	Rs. 10,000 per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking	9.5-inch x 7 inch
Half Page	Rs. 7,000/- + 18% GST per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking.	4.75-inch x 7 inch
1/8th of a Page	Rs. Rs. 2,000/- + 18% GST per issue, 10% rebate for quarterly, 20% rebate for half-yearly, and 30% rebate for yearly bookings. (Only for IAStructE Members)	Standard size of Business Card

Members Achievement

1. **Er Dr. Abhay Gupta**, Fellow IAStructE and Director, Skeleton Consultants Pvt. Ltd., has been conferred with Eminent Engineer Award by the Institution of Engineers (India) in recognition of his outstanding contributions to the civil engineering profession. The award has been presented during the 40th National Convention of Civil Engineers, organized by the Gujarat State Centre of IE(I) on 1-2 September 2025 in Ekta nagar, Kevadia Gujarat.



Accredited Structural Engineers (ASE – IAStructE):

The IAStructE Accreditation Program for Accredited Structural Engineers (ASE – IAStructE) is designed for experienced structural engineers with a strong understanding of Indian design codes and standards. This accreditation sets a benchmark for professional and technical excellence, enhancing structural engineering practice in the country. The entire program would be on the basis of a two-stage process consisting of an interview for the assessment of Initial Professional Development (IPD) followed by a written examination based on actual problem-solving. Both stages are mandatory to clear the assessment process and thus to get recognition. An Accredited Structural Engineer – IAStructE is someone who wishes to:

- validate their comprehensive experience and understanding of all types of structural engineering work and managerial capabilities
- demonstrate their competence on the basis of IPD and Continuous Professional Development activities in the field

The complete information about the entire process along with the application form and annexures can also be obtained from a booklet, which can be downloaded from the following link: <https://www.iastructe.co.in/ase-iastructe-accreditation.php>

Subscribing membership of fib through IAStructE:

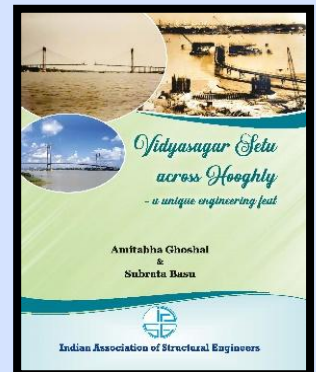
Fib has started inviting the membership subscription for 2025. There are many benefits available for IAStructE members and others who want to become subscribing members of *fib* through IAStructE. Fees for subscribing members through IAStructE: The discounted fees exclusively for the IAStructE members to become the “subscribing members” of *fib* shall be Rs 24,000.00 (CHF 250.0 approx.) as against CHF 465 for the Non-IAStructE members. The procedure to get the subscribing membership of *fib* for the year 2025 is as follows:

1. Interested members can remit the membership amount of Rs 24,000 (i.e. CHF 250) + 18% GST to IAStructE.
2. On the last day of every month, the contact details of those members who made the payment and want to be subscribing members will be sent to the *fib*.
3. The subscribing membership of *fib* will be valid for the calendar year up to December 31, 2025.

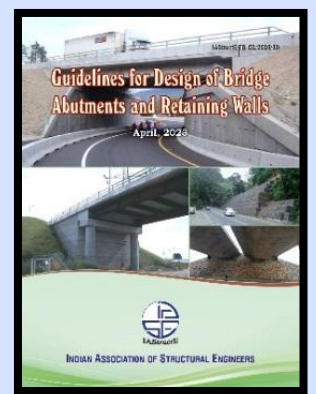
IAStructE Publications:

1. Book on Vidyasagar Setu across Hooghly – A unique engineering feat:

The book is about the story of an iconic bridge structure - the Vidyasagar Setu, initially known as the Second Hooghly Bridge (or crossing). The authors Mr. Amitabha Ghoshal and Mr. Subrata Basu have created an engaging narrative that covers both the engineering as well as the other related issues in lucid detail. The book is available for Sale @ Rs 1200/- + Rs 150/- (postal charges). IAStructE Members are entitled to a discount of 10% on the book price. Interested professionals who wish to purchase the book may contact us at iastructe@gmail.com.



2. Guidelines for Design of Bridge Abutments and Retaining Walls: This document will assist practicing bridge and structural engineers in building confidence in the design of these structures, which offers tools for the design of economic and innovative retaining structures. The document is rich in theoretical explanations and draws on much experience of the authors. Worked examples further illustrate the application of the applicable codes and should promote better understanding.



The document is available for sale @ Rs. 1500/-. Interested professionals who wish to purchase this document may kindly contact IAStructE Secretariat at iastructe@gmail.com. Members of IAStructE will be entitled for a discount of 10% on the price.

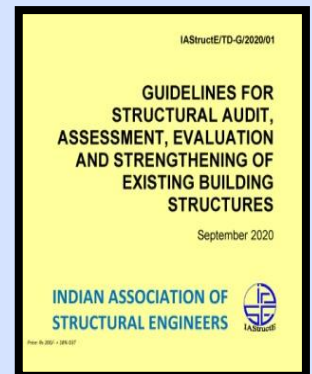
3. Commentary with Worked Examples for IRC: 6-2017: It is a document having commentary with worked example on IRC: 6-2017 (The code for Loads & Load Combinations for design of Highway Bridges). This commentary is in two separate volumes. Volume-1 pertains to the Commentary while Volume-2 pertains to Illustrative Worked Examples. It has 48 worked examples demonstrating application of various codal clauses. The documents are available for sale @ Rs. 1200/- for Volume 1, and @ Rs. 800/- for Volume II. Members of IAStructE and IRC will be entitled for a discount of 10% on the price. Interested professionals who wish to purchase the commentary may kindly register with the following link or contact IAStructE Secretariat at iastructe@gmail.com

IAStructE/TD-CC/2020/02	IAStructE/TD-CC/2020/01
<p>COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017</p> <p>STANDARD SPECIFICATIONS AND CODE OF PRACTICE FOR ROAD BRIDGES SECTION II : LOADS & LOAD COMBINATIONS (SEVENTH REVISION)</p> <p>NOVEMBER 2020</p> <p>VOLUME 2 OF 2 : ILLUSTRATIVE WORKED EXAMPLE</p>	<p>COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017</p> <p>STANDARD SPECIFICATIONS AND CODE OF PRACTICE FOR ROAD BRIDGES SECTION II : LOADS & LOAD COMBINATIONS (SEVENTH REVISION)</p> <p>NOVEMBER 2020</p> <p>VOLUME 1 OF 2 : COMMENTARY</p>

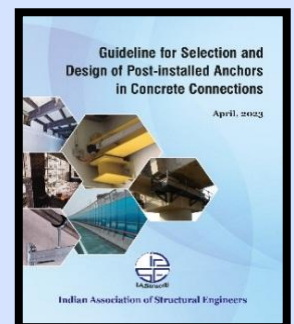
Registration link: <http://iastructe.co.in/new-iastructe-publication.php>

4. Guidelines for Structural Audit, Assessment, Evaluation and Strengthening of Existing buildings Structures: This document will guide structural engineers in proper assessment of building structures before issuing structural stability certificate. The Guideline emphasizes the urgent need to enhance building resilience against earthquakes and other hazards, ensuring structures nationwide remain safe from disaster risks.

The price of this e-document is Rs 200/-. Interested professionals, who wish to obtain the soft version of the Guideline in pdf format, may register with the following link. Registration Link: <http://iastructe.co.in/guidelines-for-structural-audit.php>



5. Guideline for Selection and Design of Post-installed Anchors in Concrete Connections: This document covers post-installed anchors, including their types, behavior, working principles, failure modes, and design steps for both non-seismic and seismic conditions. It also includes illustrative design examples. Available at www.iastructe.co.in under IAStructE Professional Documents, members can access it after logging in.



6. Commentary on IS: 13920: The commentary is available on www.iastructe.co.in under IAStructE Professional Documents. IAStructE member can access this document after login.

7. Commentary on IS: 1893 Part 1: The commentary is available on www.iastructe.co.in under IAStructE Professional Documents. IAStructE member can access this document after login.

IAStructE Library:

IAStructE has set up a library at K-69 A, Basement Kalkaji, New Delhi. It has a collection of good technical books and journals related to civil & structural engineering. Members staying in the vicinity are encouraged to utilize this facility, and if you want to contribute your books and journal to the library you are always welcomed. Please be noted that we have recently received the documents, Design & Construction—Concrete Structures 2024, bulletins 111 and 112 from fib, which are available at the IAStructE library. Interested members may come to take the opportunity to read the publications.



View of IAStructE Library



About IAStructE:

Indian Association of Structural Engineers (IAStructE) is the national apex body of structural engineers in India established with the objective to cater to the overall professional needs of structural engineers. The association has become the source of expertise and information concerning all issues that involve structural engineering and public safety within the built environment. It has no commercial aim or objective. IAStructE is purely a professional learned society with the prime objective of supporting and protecting the profession of structural engineering by upholding professional standards and acting as a mouthpiece for structural engineers. IAStructE endeavors to ensure that its members develop the necessary skill in structural engineering and work to the highest standards by maintaining a commitment to professional ethics and standards within structural engineering. IAStructE strives for continued technical excellence; advancing safety and innovation across the built environment. It also strives to make available to the Government, Public Sector and Private Sector - a credible source of well qualified and experienced Structural Engineers. A nationwide database of Structural Engineers has been compiled and is being constantly updated. IAStructE undertakes a broad range of technical activities which are aimed at information sharing and capacity building. The association provides opportunity for all the members to develop various skills in structural engineering and helps members to be at the forefront of structural engineering practice. Towards achievement of its aims and objectives, IAStructE is engaged in organizing the following: CPD Courses for Professionals at all levels Refresher Courses for Fresh Graduate Engineers, Student's orientation program, Seminars/Workshops, Technical Lectures by Experts, Technical Discussions on Contentious Issues. IAStructE is currently operating from four regional centers. These regional centres located in the Eastern, Western, Northern and Southern parts of the country effectively cater to the professional needs of members residing/practicing all over the country.

Membership Benefits:

Membership of IAStructE is a sought-after professional accreditation. Your membership of IAStructE can help you enhance your intellectual, academic, technical and professional status. It provides inter connectivity to the fellow professionals and the fraternity. Some of the benefits of membership is provided below:

- ★ Complimentary magazine subscription: All members (except Student Members) receive a complimentary subscription to the Institution's flagship publication 'Structural Engineering Digest' (SED). Published quarterly, each issue allows members to remain connected to the association through the provision of technical papers, Industry and Institution News, featured articles, Professional Guidance on everyday matters affecting the practicing structural engineers.
- ★ Access to the professional documents
- ★ Access to all Technical Lectures, organized every month, at no charge
- ★ Access to Technical Discussions held regularly
- ★ Access to the association's library (Including e-library)
- ★ Discounts in attending Seminars and Workshops organized by the association
- ★ Full on-line access to the current volume and entire e-archive of journal "Structural Engineering Digest (SED)", Refresher Course Materials, Technical Lectures, E-Newsletters and other Technical Resources of the Association.
- ★ Opportunity to network with professional structural engineers of eminence and to meet potential employers in the association.
- ★ Opportunities for professional development

How to become a member?

Membership form and details are available at <https://www.iastructe.co.in/membership-grades.php>; for more information and other details contact the Indian Association of Structural Engineers Secretariat

Indian Association of Structural Engineers
K-69A, Basement, Kalkaji, New Delhi 110019

Tel: (011) 45794829; Email: iastructe@gmail.com; Website: www.iastructe.co.in