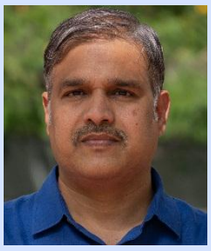
IAStructE news letter

Newsletter of the Indian Association of Structural

www.iastructe.co.in November 2023

MESSAGE FROM THE PRESIDENT



Dear Friends,

Greetings!!

I am very happy to present to you the Newsletter of November 2023. You shall be happy to know that IAStructE has celebrated Structural Engineers day, hosting 2nd Mahendra Raj Memorial Lecture, delivered by Prof C. V. R Murty. On the occasion, IAStructE recognized the excellence by presenting the awards in various categories.

The fourth issue of CROSFALL is getting ready and will be released soon. You may contribute any case study on structural failure or description of a near-miss case for publication in future issues. Our various technical committees are working hard to bring technical documents relevant to the structural engineering fraternity.

An online lecture on " Structural Assessment, Repair & Rehabilitation of a 64 years old Rail-cum-Road-Bridge at Mokama, Bihar - A Case Study" was delivered by Shri Alok Bhowmick on 23 November, 2023. Student chapter of DTU organized three events 1) Structural Engineers Day on 21st Nov 2023, 2) Expert lecture on “Unpaved and Rural Roads with Geo-synthetics, by Dr. S. K. Shukla, Founding Geotechnical & Geo-environmental Engineering, Research Group Leader, Edith Cowan University, Australia on 24 November 2023 at Pragyan Hall, DTU, New Delhi, 3) Workshop on “Research Practice for Achieving Excellence” by Dr. S. K. Shukla, Founding Geotechnical & Geo-environmental Engineering, Research Group Leader, Edith Cowan University, Australia, on 28 November 2023 at at Pragyan Hall, DTU, New Delhi. IIIT Hyderabad conducted One-day workshop on 11 Nov 2023 on "Seismic Safety of Masonry Structures". Speakers were Prof. Arun Menon, IIT, Madras, Prof. Sanket Nayak, IIT (ISM) Dhanbad, Prof. Vaibhav Singhal, IIT, Patna, Dr. R Siva Chidambaram, Senior Scientist, CSIR-CBRI Roorkee

Please send your feedback on our activities and suggestions for further improvements.

Best Regards,

Prof. R. Pradeep Kumar
President-IAStructE

FROM THE EDITOR'S DESK

Dear Readers,

This newsletter issue showcases the festivities of the second Structural Engineers Day, including the award ceremony and various events organized by student chapters in celebration of this occasion. Additionally, we have shared details about upcoming events and initiatives for knowledge dissemination. We encourage all our readers to stay connected with our organization on various social media platforms and actively promote our activities.

Thanks and regards,

Prof. Visalakshi Talakokula

CONTENTS

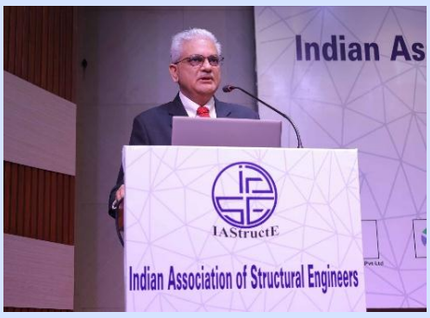
Events Organized:

Celebrations of Structural Engineers' Day and Awards Ceremony along with Mahendra Raj Memorial Lecture

On the 17th of November, the Indian Association of Structural Engineers (IAStructE) marked Structural Engineers Day with great enthusiasm, hosting the 2nd Mahendra Raj Memorial Lecture and the IAStructE National Awards ceremony in New Delhi. The event held particular significance as it coincided with the birthday of the late Shri Mahendra Raj, in whose honor the Structural Engineers Day is annually observed.

Prof. Mahesh Tandon shared invaluable insights into Mahendra Raj's life, highlighting his dedication to structural engineering, illustrious career, life journey, memorable moments spent together and talked about the significance of Structural Engineers Day.

On this occasion, Dr. Dipti Ranjan Sahoo, Professor, IIT Delhi was felicitated for receiving the prestigious Shanti Swaroop Bhatnagar Award 2022, for Science and Technology in Engineering Sciences by CSIR. Prof. Sahoo was awarded the renowned Science and Technology Award for his groundbreaking work in the subject of structural fuses, such as shear-yielding dampers, in the domain of seismic design and reduction of seismic effects on buildings and bridges.



The distinguished Prof. C. V. R. Murty from IIT Madras delivered the 2nd Mahendra Raj Memorial Lecture, shedding light on the "Effect of form on Structural Safety." Prof. C. V. R. Murty talked about both architectural and structural engineering from the perspective of structural safety. He said that safety has three drivers: for, material, and loads; talked about the form and its relation to safety. Prof. Murty presented how exactly form can easily influence safety. He mentioned that structural safety comes from the five elements of nature and presented about earthquake safety, which is one of them. He talked about lateral loads, displacement loading, and the seven virtues of earthquake-resistant structures, which are structural configuration, stiffness, strength, ductility, deformability, desirable collapse mechanism, and energy dissipation, and how these seven virtues influence the form. Prof Murty further talked about structural systems, load path, vertical irregularity in structures, structural plan density, irregularity, quality control, assurance and system. In conclusion, Prof. Murty said that we do not have to depend on computer calculations; the engineers must do hand calculations. Safety has to be demonstrated through concepts and hand calculations as much as possible, and load paths should never be forgotten in the structures. Structural safety should be embedded in architectural form and not independent of each other. Prof. Murty said that the Architectural form is visible, and structural safety is not, but it can be made visible by the performance of the structure after the big earthquake happens.

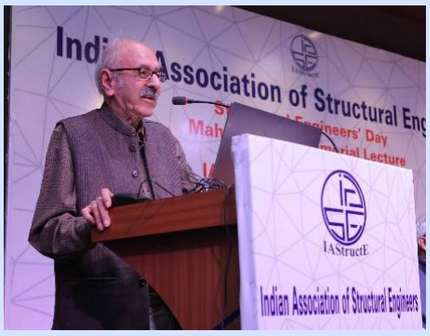
Following the insightful lecture, the winners of IAStructE National Awards 2022 competition were felicitated for their outstanding achievements and excellence in the field of structural engineering in the various categories. During the Ceremony the awards were announced by Prof. Prem Krishna and citations were read by Mr. Alok Bhowmick and Dr. Shilpa Pal. The awards, each of which carries a certificate, citation, and memento, were conferred on the winners by the President of IAStructE and eminent guests present. The entire event was moderated by Dr. Shilpa Pal, Honorary Secretary, IAStructE. The winners of the awards in the various categories are as follows:

- ★ Outstanding Structure (Buildings)– Prestige Jindal City Project by L & T Construction
- ★ Outstanding Structure (Other than Buildings)– Narmada Bridge (Vadodara Kim Expressway from Km 279 to Km 292) by Ashoka Buildcon Ltd
- ★ Outstanding Structural Engineer – Dr. B Arun Sundaram, Principal Scientist, CSIR-SERC
- ★ Outstanding Woman Structural Engineer – Dr. Padmaja Gokaraju, Vice President - Designs, Product & Systems Development, M/s Kirby Building Systems and Structures India Pvt. Ltd.
- ★ Outstanding Young Structural Engineer – Dr. Shivang Shekhar, Assistant Professor, IIT Mandi
- ★ Outstanding Young Structural Engineer – Dr. A. Vanuvamalai, Project Manager Design, M/s Sonne Infrastructure Pvt. Ltd.
- ★ Best Master's Thesis in Structural Engineering – Mr. Aditya Parpe, IIT Bhubaneswar

This event was supported by Tandon Consultants Pvt. Ltd., JK Cements, Fuji SilverTech, Dhrumataru Consultants, B & S Engineering Consultants Pvt. Ltd.

The proceedings of the entire event is available on IAStructE YouTube Channel, which can be viewed from the following link: https://www.youtube.com/live/IiKr6-9ZvxA?si=OF_9KrNjK3taeF8N

A talk About Shri Mahendra Raj and the Significance of the Structural Engineers' Day delivered by Prof. Mahesh Tandon, Past President, IAStructE on November 17, 2023



- The Indian Association of Structural Engineers was established in 2002 by senior professional Structural Engineers led by Mahendra Raj located in different parts of the country. Mahendra Raj was also its first President and remained its mentor till he passed away last year. IAStructE has made continuous and rapid progress in enhancing the status of the profession of structural engineering in the country. IAStructE has given structural engineering its own identity.
- Mahendra Raj worked with some of the famous Architects of the world such as Le-Corbusier, Yamasaki, Louis Kahn, Charles Correa, BV Doshi, Kanvinde, Stein and Raj Rewal.
- "Er Raj was a remarkable pre-computer era structural engineer, who designed unique structures using only the slide rule combined with his inimitable intuition and knowledge of engineering and mathematics.
- Mahendra Raj is known for some of the iconic buildings in modern India including the Hall of Nations in Pragati Maidan, New Delhi; Salarjung Museum, Hyderabad; Municipal Stadium and Sports Complex, Ahmedabad, etc.
- Born in 1924, he graduated in Civil Engg from Lahore in 1946, did his MS from Minnesota, USA in 1956 and CE in Structures from Columbia University in New York, USA in 1957. He started his independent practice as a structural engineer in 1960.
- A book published in 2016, titled The Structure: Works of Mahendra Raj was **Curated and Authored by:** Vandini Mehta, Rohit Raj and Ariel Huber. It gives an insight into Mahendra Raj's 60 year long journey in Structural Engineering. A round of applause for them, Ladies and Gentlemen, They have immortalized in a sense, the persona and works of Mahendra Raj. IAStructE will remain forever grateful to them for bringing out this beautiful book about the Founder of our Association that will inspire many generations of Structural Engineers and Architects.
- Quite apart from his outstanding professional achievements, many of us who knew him well, considered him a Friend, Philosopher and Guide. Raj was the wisest, kindest, and noblest person, ever. He will be remembered as much for his work as a soft spoken person and utmost humility.

Let us come to the Significance of Structural Engineers Day, the celebration of which we have gathered here today. Structural Engineers Day coincides with the birthday of Mahendra Raj which is 11 November. However, we have taken the liberty to shift the celebration by a few days for convenience.

So, what is the message for today, the Second Structural Engineers Day??

The Structural Engineers Day is an occasion to celebrate our profession, to recapitulate its successes and to reiterate the items on the unfinished Agenda. It is also an opportunity to work on the vision of what will ensure the health and vitality of the profession and what will motivate and inspire the brightest minds of the next generation to opt for this profession. Whereas in the past, technical skill implied an ability to calculate something by hand, in the present as well as in the foreseeable future, technical skill will almost always involve the preparation of the model of the structure on a software, the interpretation of computations done by computer and to trace any errors in the input and output. Of course, the knowledge of how structural elements behave, how they interact with each other and how the forces flow through the structure will always remain the supreme assets of a structural engineer. The paucity of soft skills is the main reason that structural engineers often do not get a seat at the high table. These skills constitute the traditional communication abilities like speaking, writing, and presentation. The structural engineers of the future will have to be equipped with these skills and be eager to take the lead on project teams. They will also need to develop diverse abilities to become a prominent voice in the key decision processes. There is, as a matter of fact, no other option, if we don't want to get marginalized and be relegated to a support cast.

The future structural engineers will also need to develop expertise in new concepts like sustainability, climate change, life cycle analysis, disaster reduction and disaster resilience, ultra-high performance materials and performance based designs. It is indeed sad that the profession has become detached from the formal educational process. This needs to be set right.

How do structural engineers contribute to society? Some say, "We make the world safer".

India has a high vulnerability profile from the point of view of natural disasters like earthquake, cyclones and floods. To complete the profile, we must add man-made disasters, such as pollution, unsafe buildings and structures, haphazard planning and over-crowding in cities and road accidents (I death every 3 minutes as per the recently published report of MORTH). These calamities threaten India's economy, the safety and security of its population as well as its sustainable development. Also, Structural engineering is a high-liability profession—a profession where mistakes can result in the loss of life and property.

The growing complexity of structures, advances in codes of practice and standards, increasing capability of computer software, availability of sophisticated construction equipment, construction technology and materials could undermine the practitioner's ability to protect the health, safety, and welfare of the public. The regulation of the profession therefore becomes paramount. Engineers should take up assignments which are commensurate with their experience and capability. But the lack of statutory recognition of our profession makes it difficult to achieve this. In most countries, e.g., Australia, Canada, Japan, Malaysia, New Zealand, Pakistan, Sri Lanka, South Africa, Singapore, Tanzania, USA, etc. professions such as that of Engineers are invariably governed by Acts of the Government. In India too, some professions, like that of Chartered Accountants, Doctors and Lawyers are indeed governed by Acts of Parliament. Even the Architects have an Act that restricts others to use 'Architect" as a title. For the last 30-odd years some of us, led by Mahendra Raj have been trying to get the Engineers Bill introduced in the Parliament. The battle is still on and forms a part of the unfinished Agenda.

To conclude, all that I have proposed in my talk today can be considered as the message on the occasion of the Second Structural Engineers Day. **JAI HIND !!,**

Some Glimpses of the event

Fig 1 Eminent structural engineers in a frame

Fig 2 All Awardees in a frame

Fig 3. On behalf of L & T Construction Mr. K.Ravichandran and Mr. Manikandan P. received the award

Fig 4. Dr. B Arun Sundaram receiving the award

Fig 5. Dr. Padmaja Gokaraju receiving the award

Fig 6. Dr. Shivang Shekhar receiving the award

Fig 7. Dr. A. Vanuvamalai receiving the award

Fig 8. Mr. Aditya Parpe receiving the award

Lecture on "Structural Assessment, Repair & Rehabilitation of a 64 years old Rail-cum-Road-Bridge at Mokama, Bihar - A Case Study"

An online lecture on "Structural Assessment, Repair & Rehabilitation of a 64 years old Rail-cum-Road-Bridge at Mokama, Bihar - A Case Study" was organized on November 23, 2023. It was delivered by Mr. Alok Bhowmick, FNAE, Int. PE (India), Past President, IAStructE & Managing Director, B&S Engineering Consultants Pvt. Ltd. and Mr. Sumantra Sengupta, Deputy Director (Technical), B&S Engineering Consultants Pvt. Ltd. During the lecture, attendees gained valuable insights into the experiences, challenges, and innovative solutions encountered during the assessment and restoration of this historic infrastructure. The speakers, drawing from their expertise, provided a comprehensive overview of the structural nuances, repair methodologies, and rehabilitation techniques applied to the 64-year-old Rail-cum-Road Bridge at Mokama, Bihar.

You tube Link: **https://www.youtube.com/live/XTBKmCbC6rM?si=Kq6M5ZQe-osK0vvy**

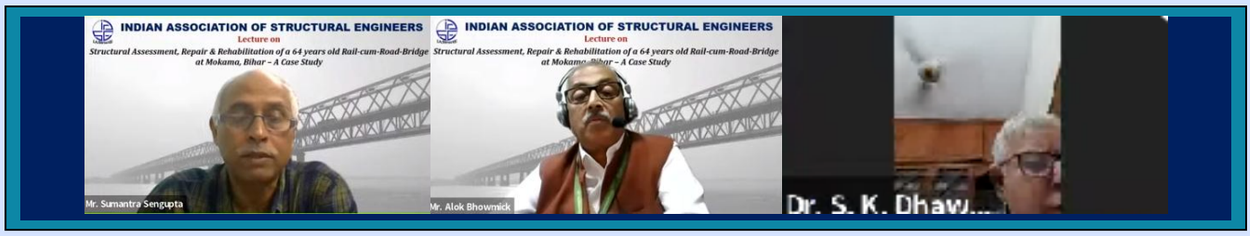


Fig.9 Glimpses from the online lecture

IAStructE Student Chapters Activities:

IAStructE DTU Student Chapter Events:

1. Tittle of the event: Celebration of Structural Engineers Day

Date & Venue: 17 November 2023 at PHD House, New Delhi

Proceedings of the event: On the 17th of November, the IAStructE-DTU Student Chapter actively participated in the prestigious Structural Engineers Day event organized by the Indian Association of Structural Engineers (IAStructE) to commemorate the legacy of its founder President, Late Shri Mahendra Raj. The event provided a profound learning experience for our students, who were privileged to participate in this compelling occasion. The pinnacle of the event was the 2nd Mahendra Raj Memorial Lecture, delivered by the distinguished Prof. C. V. R. Murty from IIT Madras, shedding light on the "Effect of Form on Structural Safety." The day concluded with the IAStructE National Awards ceremony, recognizing outstanding achievements in structural engineering across various categories.

Fig. 10 Glimpses of event

2. Tittle of the event: Expert Lecture on "Unpaved and Rural Roads with Geo-synthetics,

Speaker: Dr. S. K. Shukla, Founding Geotechnical & Geo-environmental Engineering, Research Group Leader, Edith Cowan University, Australia

Date & Venue: 24 November 2023 at Pragyan Hall, DTU, New Delhi

Proceedings of the event: IAStructE DTU Student Chapter, in association with the Indian Geotechnical Society - DTU chapter, organized a compelling Expert Lecture on "Unpaved and Rural Roads with Geo-synthetics" on 24 November 2023. The event unfolded at Pragyan Hall, DTU, New Delhi, featuring the expertise of Dr. S. K. Shukla, a distinguished figure in Founding Geotechnical & Geo-environmental Engineering and Research Group Leadership at Edith Cowan University, Australia. The session provided valuable insights into the integration of geo-synthetics in the construction and maintenance of rural roads, contributing to the knowledge enrichment of the participants.

Fig. 11 Glimpses of expert lecture

3. Tittle of the event: Workshop on "Research Practice for Achieving Excellence"

Speaker: Dr. S. K. Shukla, Founding Geotechnical & Geo-environmental Engineering, Research Group Leader, Edith Cowan University, Australia

Date & Venue: 28 November 2023 at at Pragyan Hall, DTU, New Delhi

Proceedings of the event: IAStructE DTU Student Chapter, in association with the Indian Geotechnical Society - DTU chapter, organized a compelling Expert Workshop on "Research Practice for Achieving Excellence". The workshop was aimed to foster advancements in the field. Bringing together seasoned professionals and emerging researchers, the workshop provides a platform for knowledge exchange, collaborative discussions, and the exploration of cutting-edge practices. Attendees learn about the latest research trends, hands-on sessions to enhance practical skills, and networking opportunities to strengthen connections within the structural engineering community. This event serves as a catalyst for pushing the boundaries of excellence, promoting innovation, and ensuring a robust future for the discipline.

Fig. 12 Glimpses of workshop

IAStructE – IIIT, Hyderabad Student Chapter Event:

1. Tittle of the event: One-day workshop on "Seismic Safety of Masonry Structures"

Date & Venue: 11 November 2023 through online

Speakers: Prof. Arun Menon, IIT, Madras, Prof. Sanket Nayak, IIT (ISM) Dhanbad, Prof. Vaibhav Singhal, IIT, Patna, Dr. R Siva Chidambaram, Senior Scientist, ACSC Division, CSIR-CBRI Roorkee

Proceedings of the event: The IAStructE – IIIT Hyderabad student chapter of the Earthquake Engineering Research Centre (EERC) organized an online One-Day Workshop on 11th November 2023 on the occasion of 'Structural Engineers Day'. The theme of the workshop was "Seismic Safety of

Masonry Structures" and the event was sponsored by SERB (DST, Govt. of India) under the Scientific Social Responsibility (SSR) policy. A total of 4 sessions were organized as a part of this workshop preceded by the inaugural function, which delved into diverse aspects of earthquake safety of masonry buildings, exploring various methodologies and best practices. The distinguished guests and experts shared their knowledge and engaged in insightful discussions throughout the day.

The **Inaugural Event** for the workshop marked the commencement of a knowledge-packed day aimed at fostering learning and significant discussions on earthquake safety of masonry buildings. The event was open to UG students, PG students, research scholars, structural engineers, faculty, industry people and members of the academic and research community. The gathering brought together around 200 participants eager to engage in a day of insightful sessions. Dr. P. Pravin Kumar Venkat Rao, Faculty Advisor, welcomed the guests and addressed the participants. The event began with an inaugural address by the Chief Guest, Shri. Manoj Mittal, Past President, IAStructE, set the tone for the day by highlighting the significance of the workshop and its objectives. The guest address was given by Dr. Er. Ar. S. P. Anchuri, Chief Consultant, Anchuri & Anchuri Firm, Hyderabad and Prof. Visalakshi Talakokula, Vice President, Southern Region, IAStructE. Both the Guest of Honours graced the audience with their inspirational words and emphasized the sheer necessity of knowledge on masonry and its importance in the construction of housing stock being discussed in the one-day workshop.

YouTube Link: **https://youtu.be/EHtmVInMBak?si=JHVoY2QUp-l1BSdH**

Fig. 13 Glimpses of Inaugural session

The **First Session** was on "Modelling and Seismic Analysis of Existing Masonry Structures: Recent Research Experiments at IIT Madras" by Dr. Arun Menon, Professor, Dept. of Civil Engineering, IIT Madras. The speaker provided a comprehensive overview of Masonry Structures' behaviour in past earthquakes and their local and global damages due to poor design. Additionally, he offered a detailed explanation of seismic detailing of masonry structures with emphasis on flexure mechanism to eliminate diagonal shear failure in masonry walls. He concisely summarized the approach to modelling existing masonry structures, seismic verification, and local mechanism checks. He emphasized the importance of non-linear analysis using time history and pushover methods for analyzing historical and contemporary masonry structures. The lecture included a weak link identification approach methodology for the out-of-plane capacity of unreinforced masonry piers and also the estimation of seismic strengthening methods. The presentation also involved a thorough approach to modelling masonry buildings using the equivalent frame method with rigid offsets to perform a 3D analysis. To conclude the presentation, he discussed the performance-based seismic assessment and verification of masonry structures through experimental and numerical studies.

Fig. 14 Glimpses of the lecture by Prof. Arun Menon

YouTube Link: https://youtu.be/pRKOpCxyx5Y?si=Zu5Km7zgSH07JV3Z

The **Second Session** was on "Seismic Safety of Masonry Adobes through Caging, Confinement, and Waste Added Engineered Cementitious Composites" by Dr. Sanket Nayak, Associate Professor, Dept. of Civil Engineering, IIT (ISM) Dhanbad. He started his presentation by giving a brief outline of past earthquakes that struck India and highlighted the seismic vulnerability of non-engineered (masonry) buildings. He explained the need to retrofit existing masonry structures using external and internal strengthening techniques. During his presentation, he gave an overview of the experiments conducted at the material-, component-, and structural level on composites, strengthened masonry panels and retrofitted buildings, respectively. The presentation involved loading undertaken for the flexure tests and diagonal compression tests and their inferences were shared. Additionally, he offered a detailed explanation of the in-plane and out-of-plane behaviour of strengthened specimens using Polypropylene (PP) fibre mesh (external technique) and Polyethylene

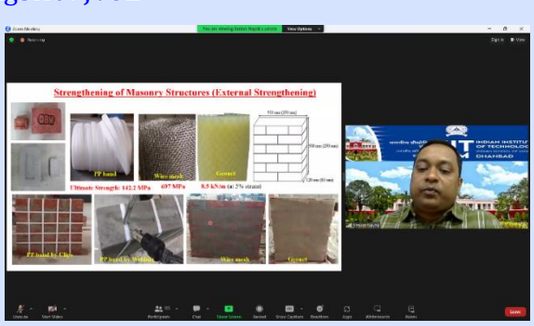


Fig. 15 Glimpses of the lecture by Prof. Sanket Nayak

Terephthalate (PET) short fibres (internal technique). He provided clear insights on the efficacy adjudgment of strengthening technique on building models and their failure patterns were discussed. Additionally, the lecture included flexible and rigid roof diaphragm actions. At last, the discussion moved forward to the necessity of government initiatives and further experimental research required to strengthen the existing masonry structures under seismic loading.

YouTube Link: **https://youtu.be/WxzJlVc4wLk?si=9qZBEUjCY3FieEz8**

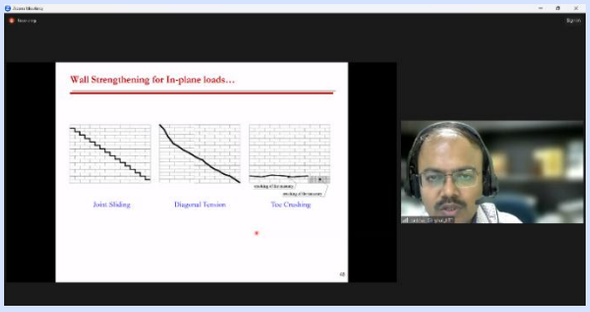


Fig. 16
Glimpses of the lecture by Prof. Vaibhav Singhal

The **Third Session** was on "Strengthening of Masonry using Externally Bonded Cementitious Matrix Grid" by Dr. Vaibhav Singhal, Associate Professor, Dept. of Civil Engineering, IIT, Patna. He provided a detailed review of externally bonded strengthening techniques for masonry construction. He discussed the advantages of cementitious matrix grid (CMG) composites over epoxy-based composites. He summarized the guidelines for the design and construction of fibre-reinforced cementitious matrix (FRCM) composites for strengthening the existing masonry buildings. Additionally, he offered a comprehensive description of the mechanical properties of such composites obtained from coupon tests and their behaviour under direct tension from the uncracked phase to the crack development phase and the fully cracked phase. The presentation involved the requirement of advanced material characterization tests like shear bond tests and pull-off tests on composites adhered with masonry substrate. The speaker also delved into experimental investigations with thorough discussions on test setups, the preparation of specimens, the application of composites and the failure modes of the specimens. He also highlighted the importance of the anchorage system and the quality of mortar to be used to prevent debonding failure mode. The session also includes the design of strengthening interventions like wall retrofitting for shear and flexure strength enhancements. He also discussed the shake-table tests on URM and FRCM strengthened infills and explained the significance of ductile failure of structural components using such composites to preserve structural integrity.

YouTube Link: https://youtu.be/hudUNcg87hY?si=3FB4AYXHIHgZmH3n

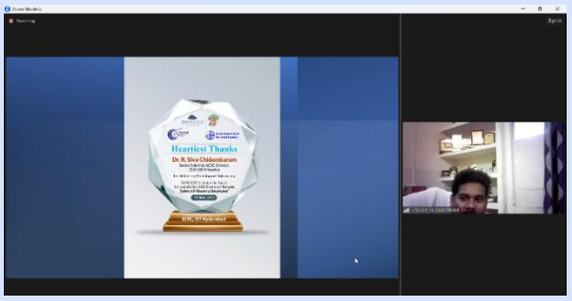


Fig. 17 Glimpses of the lecture by Dr. R Siva Chidambaram

The **Fourth** and **last Session** was on "Influence of Textile Reinforcement on the Performance Enhancement of Masonry Structures" by Dr. R Siva Chidambaram, Senior Scientist, ACSC Division, CSIR-CBRI Roorkee. He started the presentation by categorizing the different failure patterns of masonry structures under the effect of seismic events. He explained the role of horizontal bands and vertical reinforcements in achieving the integral box action. He gave a brief overview of how vegetation growth and dampness affect the performance of masonry structures. He discussed the use of geo-grid cementitious composites for external strengthening of masonry. He emphasized the role of geo-grid in achieving large deformation and high energy absorption capacity due to the high elongation of geo-grid reinforcement up to 15%. He provided clear insights into the key observations made by using plastic water bottles as another alternative retrofitting technique for brick pallet specimens. Additionally, the lecture included the various techniques developed at CBRI for the safety of masonry houses. To conclude the presentation, he discussed the extent of the building lifting technology development for Indian cities and the need for further advancement in this technology. The workshop ended with an engaging and insightful conversation, with active involvement from the participants. The discussion in all the sessions enriched the overall exploration of the history of masonry as a material, its behaviour under lateral loads, and most importantly the techniques to be used for safeguarding and strengthening the existing masonry structures is the need of the hour.

YouTube link: **https://youtu.be/KDTcd2zoUg8?si=A8_WbRav6t8U5EKN**

Forthcoming Events:

Event	*Speakers*	*Date & Timing*	*Place*
Webinar on **"Setting a new Benchmark in Vertical Expansion of Buildings"** **Registration Link:** https://us02web.zoom.us/webinar/register/WN_H4oQ5juASpqb9MhV-jeizQ	Dr. Bujar Morava, Ph.D., P.Eng., Senior Consultant, RWDI	06.12.2023 from 05:30 PM	Online through Zoom
Seminar (offline) on "Steel Structures: Health Checkup and Cure (Inspection, Assessment, Rehabilitation, Retrofitting)" *The registration fee is Rs 2000/- (including taxes). Registration can be done by sending an email to insdag@gmail.com along with the payment details.*	Dr. S. R. Satishkumar Dr. M. K. Madhavan Mr. Manish Bharti Dr. Sharvil Alex Faroz	09.12.2023 from 09:30 AM to 05:00 PM	Gulmohor Hall, India Habitat Centre, New Delhi

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.

Fig. 18 IAStructE Library

New Members:

"Fellow" Grade

M/S No	Name	Designation, Organization	State
F-544	Mr. L. Mallikharjuna Rao	Senior Bridge Engineer at Vax Consultants Pvt. Ltd.	Chennai
F-545	Dr. Fayaz Ahmad Sofi	Assistant Professor National Institute of Technology, Srinagar	J & K
F-546	Dr. Arup Saha Chaudhuri	Professor at Techno India, College	Kolkata
F-547	Mr. Deepak Jain	Senior Manager Structures at Jacobs Solutions India Pvt. Ltd.	Delhi

"Associate Member" Grade

M/S No	Name	Designation, Organization	State
AM-452	Mr. Vardhan Garg	Design Engineer at CASAD Consultants Pvt. Ltd.	Ahmedabad
AM-453	Mr. Jagteshwar Singh	Assistant Engineer Bridges at Jacobs Solutions India Pvt. Ltd.	Jammu & Kashmir

"Student Member" Grade - 02

Call for IAStructE National Award Competition 2023:

Call for Nominations: IAStructE is calling for nominations for the 2023-National Awards Competition. The nominations forms for various categories can be downloaded from the links given below. The last date for receipt of nomination has been extended till 15th December 2023.

Registration Link: https://www.iastructe.co.in/iastructe-national-awards-2023.php

Indian Association of Structural Engineers

IAStructE National Awards Competition 2023

Call for Nomination

The Indian Association of Structural Engineers (IAStructE) is a prominent national professional body of structural engineers in India dedicated to the overall development of structural engineering in India. Its activities & publications are known for rich & relevant technical contents. It represents the profession on policy matters. The National Awards Competition by IAStructE is held every year to recognize the contribution of structural engineers and to promote structural engineering excellence.

Nominations are invited for IAStructE National Awards Competition 2023 in the following Categories:

(Instructions & Terms are given in the nomination forms of each category)

1. OUTSTANDING STRUCTURE OF THE YEAR (Two Awards)

i) Buildings: Residential, Commercial, Industrial, Hospitals, Schools etc.,

ii) Structures other than buildings: Bridges, Large span space structures for sports, exhibitions etc, Industrial structures, Hydraulic Structures, Monuments, Tall towers etc.

2. OUTSTANDING STRUCTURAL ENGINEER AWARD (One Award)
3. OUTSTANDING WOMAN STRUCTURAL ENGINEER AWARD (One Award)
4. PROMISING YOUNG STRUCTURAL ENGINEER AWARD (One Award)
5. BEST MASTER'S THESIS IN STRUCTURAL ENGINEERING (One Award)

(Download nomination forms from the link given below - Kindly read instructions carefully before submission)

https://www.iastructe.co.in/iastructe-national-awards-2023.php

The Awards

- All Awards shall consist of a Plaque along with a Certificate & Citation. The Best Master's Thesis Awardee will also get a cash prize of Rs. 20,000/-.
- The Award Winners can use the IAStructE logo on their print and promotion material by mentioning the year of the award and the name of the Indian Association of Structural Engineers.
- The Jury can cancel or alter the number of awards as stipulated above.

Last date of receipt of nominations has been extended to 15th December 2023

INDIAN ASSOCIATION OF STRUCTURAL ENGINEERS
K-69 A, Basement, Kalkaji, New Delhi - 110019
Tel : (011) 45794829 • E-mail: iastructe@gmail.com • Web : www.iastructe.co.in

IAStructE is now a Statutory Member of fib:

Indian Association of Structural Engineers

is now a

Statutory Member of *fib*

We are delighted to announce that IAStructE has become the Statutory Member of *fib* and Indian National Member Group representing India in *fib* general assembly.

The *fib*, which is "The International Federation For Structural Concrete" (Fédération Internationale du béton in French), is a not-for-profit association formed by 41 national member groups, is spread over more than 100 countries. *fib* has approximately 2500 corporate and individual members. The *fib*'s mission is to develop at an international level the study of scientific and practical matters capable of advancing the technical, economic, aesthetic and environmental performance of concrete construction.

As a statutory member of *fib*, IAStructE will represent India in the General Assembly and will enjoy the following benefits, which are exclusive to national member groups only:

- Voting rights in the general assembly of *fib;*
- Hosting rights for *fib* congresses and symposia;
- Events organised by IAStructE can be co-sponsored by the *fib;*
- Rights to nominate candidates for *fib* awards.

Members of IAStructE will enjoy the following benefits :

- Opportunity to become a part of *fib* technical committees and contribute to the *fib* Model Codes (published approximately every 10 years).
- Opportunity to become a part of the *fib* Task Groups and Commissions
- Opportunity to be nominated for the *fib* awards thru' IAStructE.
- Access to all the bulletins published since the 2022 through IAStructE.
- Eligible for 'subscribing' membership by paying discounted subscription fee.
- All current publications of *fib* can be purchased at discounted rates.

More information about the *fib* publications, bulletins, events, courses, and their proceedings can be obtained from https://www.fib-international.org/

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Message from IAStructE social media & Digitization Committee

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

With all new look of our website and media handles, 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 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. 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 sent 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.*

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

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

SED Editorial Board invites article contributions for the forthcoming issue of the Structural Engineering Digest on the following themes, which shall be published in e-book format. Details are as under:

October-December 2023 issue: Theme: Tunnel/Underground Structures
Guest Editor: Mr. Partha Banerjee

Sub-theme:

- Tunnel Design: TBM, NATM, Cut & Cover and Cross Passage
- Tunnel Construction: TBM, NATM, Cut & Cover and Cross passage
- Underground Station Design
- Underground Station Constructions
- Instrumentation & Monitoring and Damage Assessments
- Geophysical Investigation in Urban Area

Interested professionals may send their abstract along with the full paper on any of the above issues along with their photograph and brief resume latest by 15 November 2023 or 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.

Interested authors/contributors may kindly mail to iastructe@gmail.com regarding i) Broad guidelines on areas of coverage; ii) size of the article; iii) format of paper submission. As per the laid down procedures all the papers shall be sent to the referee for review and the comments will be informed to the authors for incorporating the same. Papers shall be published after peer review & approval of SED editorial board.

April-June 2024 issue: Theme: Industrial Structures
Guest Editor: Mr. V. N. Heggade

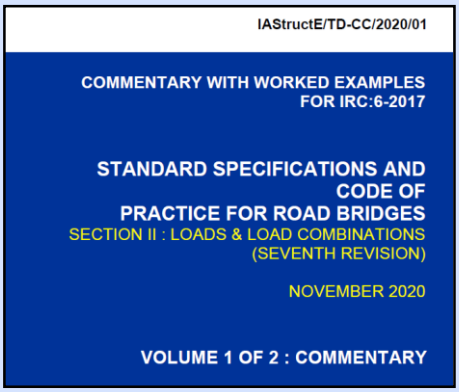
Sub-theme:

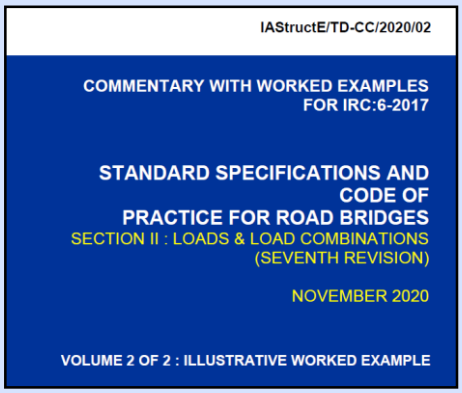
- Industrial Cooling towers and chimneys
- Factory Buildings
- Balance of plant structures in nuclear power plants, Thermal power plants, and hydel power plants
- Structures in steel and cement plants

Interested professionals may send their abstract along with the full paper on any of the above issues along with their photograph and brief resume latest by 30 January 2024 or 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.

IAStructE Publications:

1. 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.



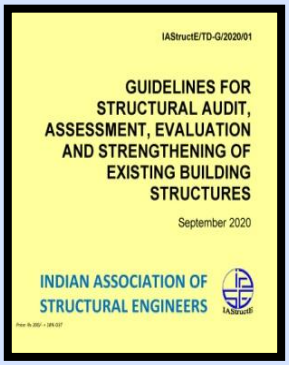


It's a priced document and hence not freely downloadable.

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 this amount. Interested professionals who wish to purchase the commentary may kindly register with the following link or contact IAStructE Secretariat at **iastructe@gmail.com**

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

2. 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. These guidelines may be used by IAStructE members, all other structural engineers, house owners, housing society welfare associations, clients and corporation engineers for understanding structural audit of the private and public building structures. The Guideline focuses on the urgent need to strengthen risk resilience of buildings from any kind of risks due to earthquake and other hazards. It is hoped that this document will be useful to ensure that all structures across the country remain safe from any kind of disaster risk.



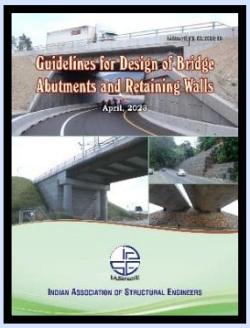
It's a priced document and hence not freely downloadable.

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**

3. 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.

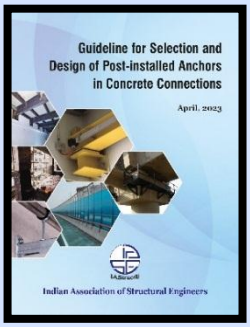
4. Commentary on IS: 1893 Part 1: The commentary is available on www.iastructe.co.in under IAStructE Professional Documents. IAStructE member can access this document after login.

5. 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**

6. Guideline for Selection and Design of Post-installed Anchors in Concrete Connections: In this document, only post-installed anchors are covered including their types, behaviour and working principles, failure modes, and basic design steps for non-seismic and seismic situations. A few illustrative design examples too are presented for better understanding of design methodology. This document is now available on www.iastructe.co.in under IAStructE Professional Documents. IAStructE member can access this document after login.



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

Accredited Structural Engineers (ASE – IAStructE):

The IAStructE program for Accreditation as Accredited Structural Engineers (ASE – IAStructE) is suitable for practicing structural engineers who have experience in the structural design field and have a good understanding of applicable design codes/standards in India.

This accreditation will help Structural Engineers in India to set a benchmark of proven professional & technical excellence and raise the levels of 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. Applicants have to demonstrate their competence in the designated 12 key attributes on which they will be assessed during the interview. The applicant would then require to clear the examination by answering any single chosen question from the options given in the question paper with a minimum level of marks stipulated. 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

Details of the application and assessment requirements, fees, and available dates can be consulted in the relevant fields given in the tabs below. They summarize the general application process, the assessment requirements, and the steps needed to qualify for the ASE-IAStructE accreditation.
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

This assessment process will be held bi-annually, being initiated in January & July respectively.

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

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