

# **IAStructE**



Newsletter of the Indian Association of Structural Engineers

www.iastructe.co.in

March 2023

#### MESSAGE FROM THE PRESIDENT



Dear Friends, Greetings!!

Hope you are doing well. You shall be happy to know that IAStructE is very actively engaged in conducting technical lectures, webinars, publication of newsletters, CROSFALL & Structural Engineering Digest. All these activities have very rich technical contents & are being appreciated by the fraternity. You may find details of such

activities & publications in this newsletter and on our website.

Structural Engineering Digest (SED) Jan-Mar 2023 issue dedicated to the theme of "Structural Engineering for Sustainable Development" is in final stages and shall be released in next seven to ten days. Third issue of CROSFALL is also in final stages and shall be released in next few days. You may contribute any structural failure for publication in future issues. As you know identity of the reporter and the project is not disclosed. It is purely for learning purposes. Few more guidelines are also in the printing stage and shall be released soon. As mentioned earlier a new program of accreditation of engineers as 'Accredited Structural Engineer IAStructE' has been launched on first January 2023. It is expected to raise the standards of structural engineering practice in the country. If interested, then apply as soon as possible and share this information with others. Awards Committee has also submitted the recommendations for IAStructE awards 2022 and results shall be announced in next few days.

IAStructE has completed the process of elections for the new Governing Council for the term 2023-25. New Governing Council shall take over during next AGM which is likely to be held in April end.

I encourage you to send your feedback on our activities and suggestions for further improvements.

Best regards,

Manoj Kumar Mittal President-IAStructE

#### FROM THE EDITOR'S DESK



Warm greetings to all the readers!!

This month's issue focuses on the panel discussion about the Turkey earthquake and the lessons that can be learned from it. The program was highly appreciated by the

participants and can be viewed on our YouTube channel for those who missed it. Our student chapters have also been actively organizing various knowledge dissemination activities, which are highlighted in this issue. We always welcome your feedback and suggestions, so please feel free to reach out to us with any thoughts or ideas you may have.

Thanks & Regards,

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Dr. Visalakshi Talakokula

# Online Events:

#### 1. Online Panel Discussion:

An Online Panel Discussion on "Turkey Earthquake - Lessons for India" was organized on 07 March 2023. This session was moderated by Dr. R. Pradeep Kumar, Vice-President, IAStructE (South). The discussions, learnings and the observations shared by the panelist were highly appreciated by the participants.

The expert panelist include:

- Prof. Dr. Alp Caner, Professor, METU, Turkey
- Prof. Mahesh Tandon FNAE, Int. PE (India) Past President & GC member, IAStructE
- Mr. Manoj Mittal, President, IAStructE
- Mr. Alok Bhowmick FNAE, Int. PE (India) Immediate Past President, IAStructE
- Ms. Sangeeta Wij, GC Member, IAStructE
- Prof. Raghukanth, Professor, IIT Madras
- Dr. C. V. R. Murthy, Professor, IIT Madras

YouTube link: https://www.youtube.com/live/ez99Mo5zv8M



Fig. 1 Glimpses from the Panel Discussion

#### 2. Online Lecture:

An online lecture on "Intricacies Involved in Design & Construction of Tall RCC Chimneys" by Mr. Vinay Gupta, Director & CEO, M/S Tandon Consultants Pvt. Ltd. & Vice-President, IAStructE (North) was organized on 23 March 2023. It was moderated by Mr. V. N. Heggade, FNAE, Design and Construction Consultant, DECon Complete Solutions & GC member IAStructE.

YouTube link: https://www.youtube.com/live/2yrcMtc8JgA



Fig. 2 Glimpses from online lecture

# IAStructE Student Chapter Activity:

## IAStructE - CEPT, Ahmedabad Student's Chapter

1. **Title of the Event:** FT Lecture Series – 3 "Plan Before Ban"- Waste Plastics"

Date & Venue: 03 March 2023 (Online)

Proceedings of the event: The proposed talk strives to review and present the development and key applications of waste plastics in the domain of civil engineering. Dr. Vasudevan developed an innovative method to reuse plastic waste to construct better, more durable and very cost-effective roads. His process, patented in 2006, involves mixing shredded plastic with hot gravel and adding it to molten asphalt. His road construction method shows greater resistance to damage caused by heavy rains and 'Plastic roads' constructed since 2002 have not developed blisters or potholes. His technology is now widely used to construct roads in rural India.



2. **Title of Event**: Technical Visit to the Institute of Seismological Research

Date & Venue: 22<sup>nd</sup> March 2023 at Institute of Seismological Research, Gujarat

Proceedings of the event: A Visit was organized on 22<sup>nd</sup> March 2022 at Institute of Seismological Research by Faculty of Technology and IAStructE CEPT student chapter, CEPT University. ISR is the only institute in India, fully dedicated to seismological research and is premeditated to be the foremost global institute in few years' time. The students got divided into two groups. The visit started with the Geotechnical Laboratory where the technician explained the SPT test and the importance of N value in determining the bearing capacity of soil. Sieve analysis for the coarse grain soil and hydrometer test for fine grain soil was also demonstrated. The lab was equipped with advanced consolidation testing machine, cyclic cum static triaxial testing machine, electronic direct shear apparatus and rapid moisture meter for in lab and on site tests. The next visit was in seismic data analysis center, wherein the scientist gave useful information regarding the earthquake zones of India, seismicity map and fault map of Gujarat, broadband seismographs and strong motion seismographs installed at various locations in Gujarat. Students also witnessed live seismic monitoring. The students then visited Optically Stimulated Luminescence laboratory (OSL Lab.), which is used for dating of sediments. The students had the opportunity to visit geophysical investigation center, wherein the scientist discussed the need of geophysical investigation for seismic micro zonation and seismic hazard studies including his own field experiences. The students were shown the equipment and sensors used for the same. The students had an interesting session of question and answers with the ISR members. They had a good learning experience. ISR staff was very co-operative and technically sound.



Fig. 3 Glimpses of technical visit



## IAStructE - IIIT, Hyderabad Student's Chapter

**Title of the event:** Guest Lecture: "Non-Engineered 2.0 - A Call to Action"

Date & Venue: 15 March 2023 (online)

Proceedings of the event: IAStructE – IIIT Hyderabad student's chapter of Earthquake Engineering Research Centre, conducted an online Guest Lecture on the topic "Non-Engineered 2.0 - A Call to Action" on 15th March 2023 for all the M. Tech and Ph.D. students, structural engineers, faculty, academic and research fraternity. Dr. Martijn Schildkamp, Founder and Director of Smart Shelter Research was the speaker for the event. He is an architect and engineer from the Netherlands with a passion for alternative materials and experimental building with low-tech earthquake-resistant principles. He gave an insight into the seismic deficiencies existing in stone masonry buildings and their damage patterns during seismic events. He has highlighted the errors and mistakes reported in many of the national and international guidelines that have been carried forward for a very long time. He educated the

audience on the need for understanding the basic masonry structures design and earthquake-resistant construction techniques. He highlighted the importance and behaviour of reinforced concrete (RC) bands in the new stone masonry buildings against in-plane and out-of-plane seismic actions. He demonstrated the crucial deficiencies in Indian codes and the need to modify or develop accurate and cohesive codes for masonry structures. He also added a huge scope for work and innovations required for masonry construction and design with a special emphasis on the academic and research fraternity. Further, the discussion was



Fig 4. Glimpses from the Lecture

concluded by showing the need for quality workmanship and material usage at the time of construction. A very insightful discussion was held at the end of the webinar with the participant.

# 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 theme, which shall be published in e-book format. Details are as under:

★ April – June 2023 issue: Theme: Liquid Retaining Structures Guest Editor: Mr. L. K. Jain

Interested professionals may send their abstract along with the full paper on the above issue along with their photograph and brief resume latest by 15 April 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.



# Advertisement Tariffs:

## Structural Engineering Digest (being published in PDF format)

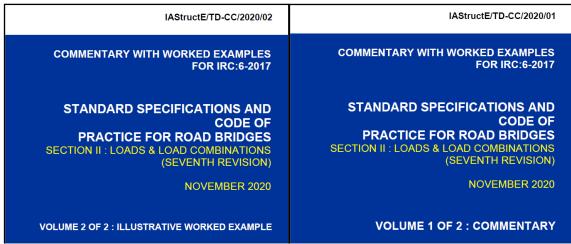
	Rates Per issue	Discounted rate at 20% for 4 consecutive issues	Advertisement Size
Full Page	Rs. 20,000/-+ 18% GST	Rs 64,000/- + 18% GST	9.5 inch x 7 inch

## 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	

## 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

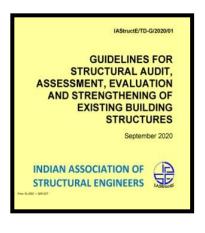


It's a priced document and hence not freely downloadable.

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 atiastructe@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.iostructe.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.

# 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.voutube.com/channel/UCvv7ojXO9Dxq1WtP\_yHZTKw

#### **New Members:**

## "Fellow" Grade

M/S No	Name	Designation, Organization	City	
	Mr. Krishna Somaraju	Design Head	sign Head Chennai	
F539	Chekka	L & T Construction, Chennai	Chennai	

## "Associate Member" Grade

M/S No	Name	Designation, Organization	City
	Mr. Vijay Kumar	Structural Engineer at Mott Macdonald, Noida	Himachal
AM425	Mir. Vijay Kumai	Structural Engineer at Mott Macdonald, Noida	Pradesh
	Mr. Jasdeep Singh Rehal	Structural Designer at AAJ Engineers &	
AM426	Mi. Jasueep siligii Kellal	Consultant Pvt. Ltd.	Nagpur
	Mr. Ali T. Shariff	BIM & Technical Engineer at Construction	
AM427	MI. Ali 1. Silarili	Material Trading Contracting, Qatar	Qatar
AM428	Assistant Design Engineer at Theme		Iainum
AIVI428	Mr. Shashank Kalla	Engineering Services	Jaipur

#### "Student Member" Grade

01 from IIT, Madras

# 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.





IAStructE Library



# 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 13 core objectives 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.

Indian Association of Structural Engineers K-69A, Basement, Kalkaji, New Delhi 110019 Tel: (011) 45794829; Email:iastructe@gmail.com; Website: www.iastructe.co.in







'UltraTech, India's No.1 RMC' - visit ultratechcement.com for claim details.