



Newsletter of the Indian Association of Structural Engineers www.iastructe.co.in August 2021

MESSAGE FROM THE PRESIDENT



Dear Members, Greetings!!

Hope you are keeping safe. Continue following CAB (Covid appropriate behaviour) in view of expected third wave of COVID.

The month of August was quite eventful for IAstructE. It is a matter of great satisfaction for us that we organised several important events and they were very well received by the

engineering fraternity. Many events had participation from outside India as well. Details of such events are included in this newsletter. Recordings of all events are also available on YouTube. Refresher course on 'Design & construction of Steel bridges' also concluded this month. It was widely appreciated by the participants. Refresher course on 'Seismic Retrofitting of buildings' has started on 4th September. My great appreciations to the Professional development & Technical events committee headed by Mr. Alok Bhowmick. This committee is doing exemplary work. Many more events are in pipeline.

Structural Engineering Digest (SED) June issue on the theme of 'Machine foundations' has already been published and circulated. Work on several more issues is in progress. Details of the next three SEDs like guest editors, themes & sub themes. Deadlines for submission of abstract and papers are also given in this newsletter. I request you to consider contributing a technical paper on any of the theme/subtheme for the SED. Work on various other publications is also under progress. Publication Committee headed by Mr. Rajeev Ahuja is doing excellent work. IAStructE National awards-2021 have been announced. Details are given in this newsletter and uploaded on the website as well. These awards were started last year and were received very enthusiastically by the structural engineering community. You may also consider nominating yourself. Circulate this message in your organisation and other contacts. Prof Prem Krishna is chairman of the Awards Committee.

IAStructE's southern region headed by Vice President Dr. R Pradeep Kumar has initiated a monthly lecture series in association with IIIT-H. First lecture was delivered by Prof Arun Menon of IIT-Madras on the theme of 'Challenges in seismic risk assessment & retrofit in historical & Heritage structures. Such activities will increase our visibility in the region. I am quite hopeful that other regional heads of IAStructE will also initiate some such activities.

Students affairs committee Headed by Dr Shilpa Paul is making efforts in establishing new students' chapters. She is also trying to make them active. At present we have active student chapters in CEPT, DTU & NSUT. Membership is also growing gradually but we need to make more efforts in that direction.

We at IAstructE are looking forward to your active participation in our activities. Send your suggestions & feedback for further improvements.

Best regards

Manoj Kumar Mittal President-IAStructE

FROM THE EDITOR'S DESK



Warm greetings to all the readers!!

This month IAStructE highlights the webinars and online refresher courses which were already held in this month and the ones which are in the pipeline. The much awaited IAStructE awards for the year 2021 are announced, readers are requested to disseminate this information. Once

again on behalf of the organization I would request all the readers to contribute to the SED journal by contributing an article.

Thanks & Regards,

Dr. Visalakshi Talakokula

CONTENTS

	CONTENTS		
-	Webinars / Events Conducted	- 2	2
-	Forthcoming Events	- (6
-	Message from Social Media Committee	è- '	7
_	Call for Papers for the SED journal	- '	7
_	Members Achievement	- 8	8
-	IAStructE Publications	- 9	9
_	New IAStructE members	-	10
-	About IAStructE	- 1	11
_	Membership Benefits	-	11
-	How to become a member?	- 1	11

WEBINARS/EVENTS CONDUCTED

1. Webinar on "Demolition of Structures – Issues & Challenges"

A webinar on "Demolition of Structures – Issues & Challenges" organized on 06 August 2021 through online platform Zoom.

Speakers: Dr. Anil Joseph, Director, Geostructurals (P) Ltd

Er. Sanjay Kumar Jain, CEO, B&S Engineering Consultants Pvt Ltd

Er. Shashank Rajbhoj, Assistant General Manager (Designs), Afcons Infrastructure Limited

Moderator: Mr. B. S. C. Rao, GC member IAStructE and Former Executive Director, BMRTL

Panel Members: Dr P R Swarup, Director General CIDC

Mr Alok Bhowmick, Immediate Past President, IAStructE

The speakers presented the case study of three challenging demolition projects in India, covering multistoried building, major bridge over river Ganga and an ROB over a busy railway track.

On this occasion Mr. Manoj Mittal, President IAStructE welcomed all speakers & participants. Dr Visalakshi Talakokula, Secretary presented the vote of thanks.

The webinar can be viewed at the following link: https://youtu.be/99_L73CYRbc



Fig. 1. Glimpses from the webinar

2. Webinar on "Performance Based Structural Fire Engineering: Does it Exist?"

Speaker: Prof. Luke A. Bisby, Head, Institute for Infrastructure and Environment, School of Engineering, University of Edinburgh

Moderator: Mr. V. V. Arora, Former joint Director & Head, CDR, NCCBM

Panel members: Dr Gaurav Srivastava, Associate Professor, IIT Gandhinagar Dr. Gopal Chandra Misra, Former Director, Delhi Fire Service Mr Nitin Gupta, Director, Arcop Associates (P) Ltd.

On this occasion Mr. Pranvendra Kumar Rao, President, Institution of Fire Engineers (India) welcomed all speakers & participants

Vote of thanks given by Mr.Manoj Mittal, President IAStructE

The webinar can be viewed at the following link: https://youtu.be/BgzN-5RshFo



Fig. 2. Glimpses from the webinar

SUMMARY

"Performance Based Structural Fire Engineering: Does it Exist?" webinar was jointly organized by Indian Association of Structural Engineers (IAStructE), School of Planning & Architecture-Delhi and Institution of Fire Engineers (India) as per the MOU signed between three Institutions. Key speaker was Prof. Luke A. Bisby, Head, Institute for Infrastructure & Environment, School of Engineering, University of Edinburgh.

Presentation was followed with a panel discussion by experts in fire engineering namely Prof. Gaurav Srivastava Associate Prof IIT Gandhinagar, Dr. Gopal Chandra Misra Former Director, Delhi Fire Service, and Mr. Nitin Gupta, Director, Arcop Associates (P) Ltd. Webinar was moderated by Sh. V. V. Arora, ex-joint dir. and Head (CDR), NCCBM Ballabgarh.

Prof Luke explained the current state of art in the area, the challenges faced in performance based fire resistance design of structures and available building codes and standards on the subject along with some case studies. He raised issues of quantification of performance requirements, skill of designers, skill of approving authorities and need of hierarchies of acceptance criteria for use in performance based structural fire engineering.

During panel discussion it emerged that in our country we do not have much data on actual time temperature curves for different fire loads which limits the flexibility in performance based design. The data of other countries may not be much useful as our materials and practices differ a lot with developed countries. So, more research is needed in the area. Few Indian case studies were also discussed wherein concept of performance based fire engineering—was used in a limited way. Regarding use of less combustible materials it emerged that practices are mostly being followed for high rise structures but more elaborate regulation and specification are needed. It was also felt that use of less combustible material was not only require for high rise structures but for low rise also because as per experience more damage has been noticed in low rise structures.

3. Lecture Series on lectures on "Towards Disaster Resilient India- Earthquake Chapter

IAStructE is organizing a series of four lectures on "Towards Disaster Resilient India- Earthquake Chapter" by Dr. R. Pradeep Kumar, Professor, IIIT Hyderabad & Vice President (South), IAStructE on different topics related to Earthquake Safety & Geotechnical Aspects of Tall Buildings, Earthquake Disaster Risk Index and Protection of Built Environment from Earthquakes through Mitigation and Preparedness Efforts.

The first lecture in the series was organized on 20th August 2021 through ZOOM. Prof. Mahesh Tandon, GC member & Past President IAStructE was the Moderator.

On this occasion Mr. Manoj Mittal President IAStructE welcomed all speakers & participants. Dr Visalakshi Talakokula presented the vote of thanks.

The first lecture can be viewed at the following link: https://youtu.be/99 L73CYRbc



Fig. 3. Glimpses from the webinar

4. IAStructE and IIIT Hyderabad Monthly Lecture Series

Lecture on "Challenges in Seismic Risk Assessment and Retrofit in Historical and Heritage Structures"

Online monthly lecture series jointly organized by IAStructE and IIIT Hyderabad was launched on 27 August 2021 by Mr. Manoj Mittal, President, IAStructE. First lecture in the series was on "Challenges in Seismic Risk Assessment and Retrofit in Historical and Heritage Structures" by Prof. Arun Menon of IIT Madras. About hundred participants comprising of practicing engineers, academicians, research scholars and students from India and abroad participated in the lecture. Mr. Manoj Mittal, President, IAStructE gave opening remarks and highlighted the importance of technical lectures on rare topics like conservation of historical and heritage structures from structural engineering perspective.



Fig. 4. Glimpses from the webinar



Later, Prof. R. Pradeep Kumar gave a brief about the lecture and introduced the speaker to the audience. Followed by that Prof. Arun Menon gave his lecture. Highlights of the lecture are given below:

- Historical monuments and heritage structures, with the exception of construction in regions with a strong local seismic culture (LSC), are generally vulnerable to earthquake action due to the inherent nature of their construction materials and structural systems (for e.g., bulky unreinforced masonry, dry stack stone construction, etc.) and due to material degradation and deterioration over time.
- It is important to understand the materials, the structural elements and their function, various structural modelling techniques for the estimation of system capacity of structures with historical and cultural importance.
- The criteria for the interventions, acceptable structural interventions and the challenges and constraints associated with built heritage to improve their seismic performance were discussed.
- Various international standards were introduced. The role of engineers in the heritage conservation was emphasized.

Post the lecture there was overwhelming response from the participants. The video of the lecture is made available at YouTube link **Arun-Heritage** for the benefit of the members who couldn't attend the lecture

The webinar can be viewed at the following link: https://youtu.be/6Bo0mHwzcy0

7. ONLINE REFRESHER COURSE

Online Refresher Course on "Design & Construction of Steel Bridges", which was launched on 17th July 2021, the concluding session was organized on 28th August 2021. The lectures were organized on every Saturday from 02:30 PM to 06:30 PM (IST). Mr. Anirban Sengupta, Fellow IAStructE and CTO 7 Jt. Vice President, STUP Consultants Pvt Ltd is the Course Coordinator. It was sponsored by Mageba and Supporters are GPT Infraprojects Ltd, P&R Infraprojects Ltd, TekSahaya Pvt Ltd, S P Singla Constructions Pvt ltd, Tata Structura, Corrosion Protection Pvt Ltd. The course was attended by 300 delegates. Prof Prem Krishna, Former Professor, IIT Roorkee was invited as the special panelist during the concluding session on 28th August 2021. The presentations were made by the following eminent speakers.



Fig. 5. Glimpses from the Online Refresher Course

FORTHCOMING EVENTS

Event	Topic	Speaker	Date & Timing	
Online Refresher Course	Seismic Strengthening and Retrofitting of Buildings <i>Registration link:</i> http://iastructe.co.in/online-refresher-course.php	Eminent Experts are being invited for making the presentations	04 September to 02 October 2021 (every Saturday from 03 PM to 06 PM)	
Webinar	Post Installed Fastenings: from Design to Execution with State of the Art Methods & Techniques Details shall be announced shortly	Mr Amol Singh, Marketing Manager - Structural, Hilti (Singapore	17 th September August 2021 at 04:00 PM	
IAStructE Awards 2021	Call for Nominations: IAStructE is conducting the National Awards Competition for the year 2021. The nominations forms for various categories can be downloaded from the links given below. The last date for receipt of nominations is 31st October 2021. http://iastructe.co.in/iastructe-national-awards-2021.php			

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 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:

July – September 2021 issue: Theme: Structural Health Monitoring

Guest Editor-Prof. Suresh Bhalla, Professor, IIT Delhi

Interested professionals may send the abstract along with their photograph and brief resume by 15th September 2021 and full paper by end of September 2021.

October – December 2021 issue: Theme: Durability of Structures

Guest Editor- Mr Aman Deep Garg, Member IAStructE & Director, Creative Design Consultants & Engineers Pvt Ltd.

Sub-themes:

- Durability for PT structures for pre-stressing tendons
- RCC buildings/ structures with concrete surfaces exposed to environment
- Measures for Existing RCC buildings having High Chloride contents in reinforced cement concrete
- Measures for Existing RCC Bridges having exposure to aggressive environment caused by contaminated water/ air pollution
- Durability of RCC foundations exposed to aggressive soils/ ground water having high chlorides/ sulphates
- Durability for Steel Structures
- Durability for Composite structures having hot rolled steel inside the concrete jacket exposed to extreme environment
- Durability of masonry structures
- Comparative studies of durability for various types of reinforcements like TMT Steel, Stainless Steel, Coated steel bars, other new reinforcement materials for concrete.
- Any other related research findings for maintenance free, durability of structures.

Interested professionals may send the abstract along with their photograph and brief resume by 15th October 2021 and full paper by end of October 2021 or at the earliest convenience.

January – March 2022 issue: Theme: Sustainability of Precast and Prefabricated Buildings

Guest Editor- Dr Gaurav Rastogi, GC Member IAStructE & Proprietor - Gaurav & Associates

Interested professionals may send the abstract along with their photograph and brief resume by 15th January 2022 and full paper by end of January 2022 or at the earliest convenience.

April – June 2022 issue: Theme: Precast Segmental Bridges - State of The Art

Guest Editor- Mr Alok Bhowmick, Immediate past President IAStructE

Sub Themes:

- Planning & Conceptual Design
- Construction
- Bridge Deck Erection Issues
- Detailed Design Considerations
- Failure Case Studies
- Rehabilitation Case Studies
- Structural Health Monitoring & Maintenance Issues

Interested professionals may send the abstract along with their photograph and brief resume by 15th April 2022 and full paper by end of April 2022 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.

MEMBERS ACHIEVEMENT





Skeleton Consultants Pvt Ltd Noida, headed by Er. Dr. Abhay Gupta, Honorary Treasurer IAStructE has been felicitated by Association of Consulting Civil Engineers (India). The Association conferred the ACCE(I) – Simplex Award 2021 to Skeleton Consultants Pvt Ltd, Noida for their project "351-feet high Lord Shiva statue at Nathdwara, near Udaipur", during the 29th ACCE(I) Annual Award function held online on 22nd August 2021at Bengaluru.

IAStructE PUBLICATIONS

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

IAStructE/TD-CC/2020/01

IAStructE/TD-CC/2020/02

COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017

STANDARD SPECIFICATIONS AND CODE OF PRACTICE FOR ROAD BRIDGES SECTION II: LOADS & LOAD COMBINATIONS (SEVENTH REVISION)

NOVEMBER 2020

VOLUME 1 OF 2: COMMENTARY

COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017

STANDARD SPECIFICATIONS AND CODE OF PRACTICE FOR ROAD BRIDGES SECTION II: LOADS & LOAD COMBINATIONS

NOVEMBER 2020

(SEVENTH REVISION)

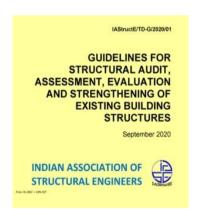
VOLUME 2 OF 2: ILLUSTRATIVE WORKED EXAMPLE

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.

NEW MEMBERS

"Member" Grade

M/S No	Name	Designation, Organization	City
M-316	Dr. Kashyapkumar Arvindbhai Patel	Assistant Professor, Civil Engineering Department, SVNIT, Ichchhanath	Surat
M-317	Mr. K. Vasanth	Structural Engineer	Thanjavur (TN)

"Associate Member" Grade

M/S No	Name	Designation, Organization	City
AM-345	Mr Mohd. Azam	Design Engineer, STEC	New Delhi

"Student Member" Grade

One Student - Vellore Institute of Technology

Forty Two Students - CEPT University

Twenty Four Students - Delhi Technological University

Two Students - Indian Institute of Kanpur

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 it's 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 http://www.iastructe.co.in/membership-form.html; For more information and other details contact the Indian Association of Structural Engineers Secretariat