

## MESSAGE FROM THE PRESIDENT



Dear Friends,

Like previous months this month was also quite busy and active here at IAStructE. This month we completed our refresher course on "Assessment, Repair & Rehabilitation of Bridges" under the leadership of Mr. Umesh Rajesirke. It was quite successful event in terms of participation & effectiveness. A site visit to "Mumbai Trans Harbour Link (MTHL)" was also organised by our Western region. It was highly appreciated and we have received requests from members for organising many such events. Our students affairs Committee under the leadership of Dr. Shilpa Paul organised a lecture on "Structural Fire Safety" exclusively for our student members. Our Southern Region too organised an interesting & well attended lecture on "Wind Engineering on Highrise Buildings and Structures" delivered by Mr. Balla Venu Kumar. After almost two years a monthly lecture on "Wind & its Implications for Structural Design" by Prof Prem Krishna was organised at IIT Delhi in Hybrid mode under the leadership of Dr. S K Dhawan. You will find details of these events in the newsletter.

Jan-March issue of Structural Engineering Digest dedicated to the theme "Precast & Prefabricated Structures" has been published and released. I hugely appreciate the efforts of Dr. Gaurav Rastogi, Dr. R Pradeep Kumar & Mr. Rajiv Ahuja in coordinating this effort. Next issue of SED will on the theme "Precast Segmental Bridges – State-of-the-Art" with Mr. Alok Bhowmick as its guest editor. You are encouraged to send your papers & case studies for publication.

It is a matter of immense pride for all of us at IAStructE that Mr. Mahendra Raj, our founder president has been conferred with 'Lifetime achievement award' by Engineering Council of India for his outstanding contribution to engineering profession. This award was received by his son Mr. Rohit Raj on 28<sup>th</sup> April 2022 at a function organised by ECI at IHC Delhi.

I request all members to contribute actively to the activities of the association and send your feedback & suggestions.

Take care,

Best regards



Manoj Kumar Mittal  
President-IAStructE

## FROM THE EDITOR'S DESK



Warm greetings to all the readers!!

This April issue highlights about the lecture by Prof. Prem Krishna, which was the first lecture after resumption of Monthly lectures which were stopped due to the pandemic, details of unique quarterly newsletter "CROSFALL" (Confidential Reporting of Structural Failures and Lessons Learnt) which is about to start. The issues also highlights Shri Mahendra Raj, Founder President, IAStructE has been conferred on Life Time Achievement Award by ECI. To expand our strength of members, a membership drive has been started and the details can be found here. Request all our readers to follow, subscribe and like IAStructE events on all digital platforms

Thanks & Regards,



Dr. Visalakshi Talakokula

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## WEBINARS / EVENTS CONDUCTED

### ONLINE WORKSHOP

Online Workshop on “**Assessment, Repair & Rehabilitation of Bridges**”, was successfully conducted during 18<sup>th</sup> March 2022 to 15<sup>th</sup> April 2022. There were five sessions, which were organized once in a week. Mr. Umesh Rajeshirke, Vice President (West), IAStructE & Managing Director, Spectrum Techno Consultants Pvt. Ltd. was the Course Coordinator. It has been supported by Mageba Bridge Products Pvt. Ltd, Hilti Pvt. Ltd. and VSL India Pvt. Ltd. The courses was attended by 80 delegates. Prof. Achyut Ghosh was the Panelist for the entire course. The presentations were made by the following eminent speakers.

- ★ Dr. Harshavardhan Subbarao CMD, Construma Consultancy Pvt. Ltd
- ★ Dr. Tomonori Nagayama Associate Professor, Department of Civil Engineering, University of Tokyo
- ★ Dr. Lakshmy Parameswaran, Chief Scientist, CSIR-CRRI
- ★ Prof. Arul Jayachandran, Professor IIT Madras, Chennai
- ★ Mr. Anirban Sengupta Senior Vice President (Technical), Assystem STUP
- ★ Mr. Alok Bhowmick MD, B&S Engineering Consultants Pvt. Ltd.
- ★ Mr. Agostino Marioni, Chairman, HIRUN INTERNATIONAL
- ★ Mr. Ravindra Goel, Chief Engineer, Central Railways
- ★ Mr. Edo Vonk, Technical Manager - Repair & Preservation Business Unit, VSL International
- ★ Mr. Sudip Mazumder, Digital & IT Expert and Civil Engineer, National Co-Chair of Digitalization of Tunneling & U/G Construction for ASSOCHAM
- ★ Dr. Satish Jain, Managing Director, UHPC India Pvt. Ltd.
- ★ Dr. Nagesh Iyer, Dean (IPS) & Visiting Professor, IIT Dharwad & Former Director, CSIR-SERC
- ★ Mr. P. Y. Manjure, Director, The Freyssinet Prestressed Concrete
- ★ Dr. Mangesh Joshi, CEO, Sanrachana Structural Strengthening Pvt.
- ★ Mr. Samir Surlaker, Director, Assess Build Chem Pvt. Ltd.
- ★ Mr. V. N. Heggade, Former CEO, STUP Consultants Pvt. Ltd.
- ★ Mr. Sivakumar Balachandran, Technical Manager – VSL India
- ★ Mr. Shounak Mitra, Head – Codes & Approval (Fastening), Hilti India Pvt. Ltd.
- ★ Mr Pratik Sen, Chief Project Manager, Mageba Bridge Products Pvt Ltd



Fig. 1. Glimpses from the Online Workshop

## Site Visit

A technical visit to Mumbai Trans Harbour Link (MTHL) was organized on 16th April 2022 under the supervision of Mr Umesh Rajeshirke, Vice President (West), IAStructE, which was joined by 20 delegates.



*Fig. 2. Glimpses of Site Visit*

## Online Lecture on “Structural Fire Safety”

A lecture on the “Structural Fire Safety” by Mr. Manoj Mittal, President IAStructE was organized on 21.04.2022 through Zoom for the student members of IAStructE. The session was moderated by Dr. Shilpa Pal, Associate Professor, DTU and GC member IAStructE. The panelist were Dr. Dulal Golder, Mentor, NSUT West Campus Student Chapter, Dr. Dhara Shah, Mentor, CEPT Student Chapter and Dr. P Ravin Kumar Venkat Rao, Mentor, IIIT Hyderabad Student Chapter.



*Fig. 3. Glimpses from the Webinar*

## Webinar on “Professional Indemnity (PI) Insurance in Project Development – How does it cover Structural Engineers”

The webinar on “Professional Indemnity (PI) Insurance in Project Development – How does it cover Structural Engineers” by Mr. Pooba Mahalingam, Regional Risk Consultant (Singapore) was organized on 23.04.2022 through Zoom. The session was moderated by Mr. Alok Bhowmick, Immediate Past President IAStructE. Mr Manoj Mittal, President IAStructE was the Panelist. The Webinar can be viewed at the following link: <https://youtu.be/IMFL8-NOL9s>



*Fig. 4. Glimpses from the Webinar*



### **Technical Lecture on Wind & its Implications for Structural Design**

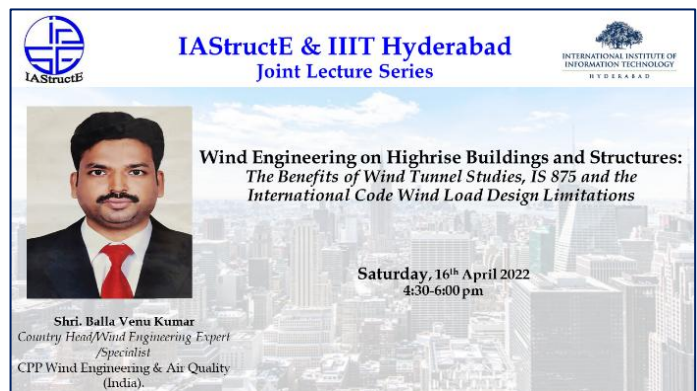
IAStructE resumed the monthly technical lecture series which was closed due the Covid pandemic. The first Lecture on "Wind & its Implications for Structural Design" by Prof Prem Krishna, Former Professor, IIT Roorkee was organized on 28<sup>th</sup> April 2022 at IIT Delhi. The lecture was attended by 16 delegates in person and also broadcasted through Zoom. The Lecture can be viewed at the following link: <https://youtu.be/ImCquvGxS1I>



*Fig. 5. Glimpses from the Lecture*

### **IAStructE Southern Region Activity**

The IAStructE-South online lecture series was held on 16<sup>th</sup> April 2022. The lecture was on "Wind Engineering on Highrise Buildings and Structures: The Benefits of Wind Tunnel Studies, IS 875 and the International Code Wind Load Design Limitations" by Shri. Balla Venu Kumar Country Head / Wind Engineering Expert / Specialist CPP Wind Engineering & Air Quality (India). The event was jointly organized by IAStructE and IIIT Hyderabad. More than hundred participants, comprising practicing engineers, academicians, research scholars, and students from India and abroad, participated in the lecture. The honorable president of IAStructE, Shri. Manoj Mittal graced the occasion by welcoming the participants and highlighting the importance of the lecture.



Wind interacts with buildings and structures in complex and often surprising ways. The factors, structure's geometry, the surrounding terrain, nearby buildings and structures, and seasonal wind conditions contributing to the complex behavior of structures due to wind loading were highlighted in the lecture. The history, limitations, and assumptions of wind loading codes were discussed. Wind tunnel testing provides specific, customized information about a building or structure or any wind-sensitive structures, making it a key tool for efficient design. The speaker covered various important aspects of wind tunnel testing by presenting images and videos of real-time wind tunnel testing facilities. An overview of the Structural and Façade Failure design was presented. The participants were excited during the lecture, and the enthusiasm of the student participants was visible in their participation in the question and answer session. The lecture was helpful to the participants because all aspects related to structures and wind engineering were covered.

The video lecture will be uploaded on the IAStructE YouTube channel for the benefit of the members who couldn't attend the lecture.

## ***CROSSFALL (Confidential Reporting of Structural Failures and Lessons Learnt)***

IAStructE is starting a unique quarterly newsletter "CROSSFALL" (Confidential Reporting of Structural Failures and Lessons Learnt), where the reporter's name and identity as well as the project name, location and identity will not be divulged. IAStructE has developed a multi layered robust mechanism to keep the identity of the reporter & Project confidential.

The objective of this newsletter is to share lessons learnt from "structural failures" or "near misses" or even "concerns" and help to prevent / mitigate future catastrophic failures by providing insight into how safety issues occur and spurring the development of safety improvement measures.

The poster giving more details is attached herewith for your kind perusal. Interested Professionals may visit the following link to get more information regarding procedures and to submit the report about structural safety issues related to any type of structures: [www.iastructe.co.in/crossfall.php](http://www.iastructe.co.in/crossfall.php)



# CROSSFALL

(Confidential Reporting of Structural Failures & Lessons Learnt)

A Quarterly  
Newsletter  
of  
Indian Association  
of Structural  
Engineers

### INTRODUCTION

CROSSFALL is a unique newsletter created by Indian Association of Structural Engineers (IAStructE). Its purpose is to share lessons learnt from structural failures, near-misses and safety concerns. CROSSFALL has a confidential reporting system, which allow safety issues to be reported by professionals, without exposing their identity and without creating concerns in areas like co-worker relations, client loyalty, or insurance. Any identifiable details, such as a project, product, individual or organisation, will remain completely confidential to CROSSFALL editorial team. Reporters' personal information will be collected to only verify the contents of the report, and to communicate with the reporter if necessary, but this will also remain strictly confidential.

The newsletter will report only safety related issues with the objective to learn lessons from such failures and to help prevent future structural failures, by providing insight into root causes of such failures and spurring the development of safety improvement measures.

CROSSFALL team will depend on professionals to submit reports, whenever they can share their concerns about what they see around or what they experience on any real-life projects. Anyone involved in the civil engineering industry is welcome to submit a report. The more reports submitted, the better CROSSFALL can identify and quantify safety issues across the industry. This will help the entire industry to learn lesson from CROSSFALL publications.







### WHAT CAN BE REPORTED?

CROSSFALL welcomes 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.

For more details and to submit the report please go through the following link: [www.iastructe.co.in/crossfall.php](http://www.iastructe.co.in/crossfall.php)

For further query you may contact [iastructe.crossfall@gmail.com](mailto:iastructe.crossfall@gmail.com)



### 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](https://www.youtube.com/channel/UCvv7ojXO9Dxq1WtP_yHZTKw)

## **MEMBERSHIP DRIVE**

IAStructE started a membership drive for a short duration, which shall be continue till 30<sup>th</sup> June 2022. During this period Structural Engineers may apply for IAStructE Membership as per eligibility without paying the Processing Fee. Interested structural engineers may also visit our website <https://www.iastructe.co.in/> for more information about the association and to visit the following link to get more information about membership requirements: <https://www.iastructe.co.in/membership-grades.php>.

**Indian Association of Structural Engineers**

**ALL INDIA MEMBERSHIP DRIVE 2022**  
*Till 30<sup>th</sup> June 2022*

**Hurry Up now to join IAStructE as Fellow/Member/Associate Member/Student Member**  
**\*Processing fee waived**

**About IAStructE**  
The Indian Association of Structural Engineers (IAStructE) is a purely professional learned society devoting all its activities to development of the Structural Engineering profession in India. It has no commercial aim or objective. Its membership is restricted to Structural Engineers with proven competence and credibility, in the engineering profession in India. The aim of the Association is to exchange knowledge and to advance the practice of structural engineering worldwide in the service of the profession and society.

**Benefits of joining IAStructE**

- ✓ Membership of IAStructE is a public acknowledgement of your holding a recognized educational qualification, adequate experience and competence to practice the profession of Structural Engineering in India.
- ✓ By joining the Association, you will be able to network with many engineering specialists and committed experts having a vision of sustainable future for Structural Engineers.
- ✓ Membership of IAStructE enables you easy and convenient access to continuing education courses, seminars, workshops, technical lectures, etc. to keep you abreast of the advancements taking place the worldover in the practice of the profession.
- ✓ The various professional activity programmes organized by IAStructE open up an opportunity for you to interact with other professionals.
- ✓ Membership of IAStructE is also considered valuable by many engineering organization, institutions & authorities

**How to Join IAStructE**  
To know about membership grades, eligibility requirement, membership fees and to fill the Membership Applications form online and to get the details of membership fees, visit the following link: <https://www.iastructe.co.in/membership-grades.php>  
*(Life membership options are also available as per the various age slab group)*

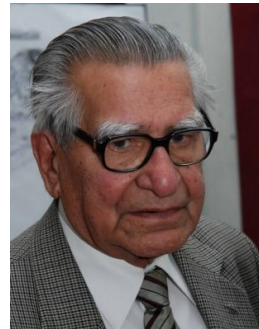
**Documents required to be submitted :** Self-attested copies of academic qualifications, experience certificates, detailed biodata (CV) highlighting the structural design experience, List of major projects handled with owner's name, detailed writeup (minimum 250 words) of two major Projects highlighting the design and analysis approach or the details of the R&D work in structural engineering, three supporter's recommendations.  
*(Please read carefully all the instructions given in the guidelines for filling of Form before submitting the application. All the fields of the form are mandatory & to be filled in properly.)*

**Processing of Application form**  
After receiving all the documents Membership Committee will scrutinize the application form and in order to know more about applicants, a virtual interaction with membership committee members shall also be scheduled..

For any further query or details IAStructE Secretariat can be contacted  
Email: [iastructe@gmail.com](mailto:iastructe@gmail.com); Tel: 011-45794829

## MEMBERS ACHIEVEMENT

Shri Mahendra Raj, Founder President, IAStructE and Chairman cum Managing Director, Mahendra Raj Consultants Pvt Ltd conferred on Life Time Achievement Award as the eminent structural engineer for his life-long outstanding contribution to the engineering profession by Engineering Council of India during its 20<sup>th</sup> Foundation Day's programme held on 28<sup>th</sup> April 2022 at New Delhi.



## CALL FOR PAPERS FOR THE THEME BASED ISSUE OF SED JOURNAL

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

**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
- ★ Bridge Deck Erection Issues
- ★ Failure Case Studies
- ★ Structural Health Monitoring & Maintenance Issues
- ★ Casting, Handling and Storing Precast Segments in Casting Yard
- ★ Construction
- ★ Detailed Design Considerations
- ★ Rehabilitation Case Studies

Interested professionals may send the full paper, abstract along with their photograph and brief resume by 15<sup>th</sup> May 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](mailto: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)

	<i>Rates Per issue</i>	<i>Discounted rate at 20% for 4 consecutive issues</i>	<i>Advertisement Size</i>
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)

- ★ **Half page:** Rs. 7,000/- + 18% GST per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking.

**Full page:** Rs. 10,000 per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking.

## 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

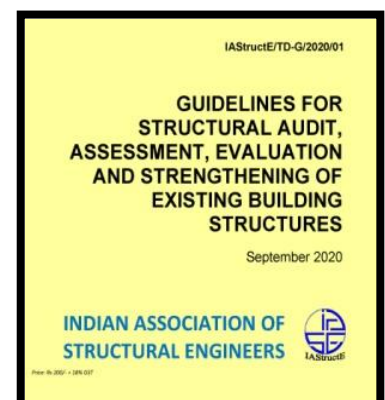
IAStructE/TD-CC/2020/02	IAStructE/TD-CC/2020/01
<p><b>COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017</b></p> <p><b>STANDARD SPECIFICATIONS AND CODE OF PRACTICE FOR ROAD BRIDGES</b> SECTION II : LOADS &amp; LOAD COMBINATIONS (SEVENTH REVISION)</p> <p>NOVEMBER 2020</p> <p><b>VOLUME 2 OF 2 : ILLUSTRATIVE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

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](mailto: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](http://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](http://www.iastructe.co.in) under IAStructE Professional Documents. IAStructE member can access this document after login.





## 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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