



## Message from the President



Dear Members,

Well this is my final President's Message for this venerable Newsletter of IAStructE. My term as President is winding down and I will have the pleasure to hand over the reigns of this revered association to the newly elected governing council, on 25th March 2021 during the Annual General Meeting of the association. It is not yet known, as to who will take the role of President for the next term of 2 years. I ask each one of you to give him / her your full support and encouragement just as you have done so for me and for our past Presidents over the years. I certainly will be there to help our next

President, as immediate Past President just as Mr Manoj Mittal helped me when I took over the reigns from him two years ago.

In my first message nearly two years ago (March 2019), I mentioned that "Structural Engineering is a wonderful profession which is a fine balance between art and engineering. Art without engineering is dreaming and engineering without art is mere calculations." That same message I wish to convey in my closing message. The beauty of this profession is that as one navigates deeper and deeper into this profession, one's interest and passion for the profession keeps increasing.

Last two years of my tenure was unprecedented, being at the top of associations affairs. There were several challenges I faced in this period, at personal level as well as in the management of the association. This period will be etched permanently in my memory, till I depart from this world. Over last 12 months, COVID-19 has thrown a new challenge to all of us and forced us to completely change the way we conduct our professional business. The crisis brought in the fore our creative best. One of the key lessons I learned in this period has been the importance of being a team player and being sensitive to the needs of the members and working as a team to get things accomplished. I have also improved my skills of decision making, skills of negotiation, communication skills and inter-personal skills in this period.

To end my message, I wish to say that .....I feel me and my team of GC are runner in a relay race, who completed the run after gripping the baton. I think it is very fitting metaphor: one is fully aware that it was the effort of the previous runners that brought us in this position. We ran with all our might without stumbling, despite many road blocks. We completed our round. It is now our turn to pass the baton to the elected Governing Council. Let the elected GC start warming up to take the baton from us on 25th March 2021 and run.

With best wishes & Warm Regards

ALOK BHOWMICK

| IAStructE Publication Committee   | Newsletter Editorial Team  |
|---|--|
| Chairman : Er. Manoj Mittal<br>Members : Er. Alok Bhowmick<br>Er. (Dr) S Chatterjee<br>Er. (Dr) Abhay Gupta<br>Er. A K Sharma<br>Prof. R Pradeep Kumar<br>Er. Rajiv Ahuja<br>Er. Amandeep Garg<br>Er. (Ms) Anal Sheth | Chief Editor : Er. (Ms) Anal Sheth<br>Members : Er. Manoj Mittal<br>Er. Bhavin Shah<br>Er. Rajiv Ahuja<br>Er. Maulesh Shah |

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### Call for Papers for THEME based issues of SED Journal

SED Editorial Board invites article contributions for the forthcoming issues of the Structural Engineering Digest on the following Themes, which shall be published in E-Book Format. A GUEST EDITOR is associated with each theme issue. Details are as under:

#### January – March 2021 issue; Guest Editor- Mr. Rajiv Ahuja

##### Theme: Bridge Foundations

- Sub themes:**
- Deep Well and Pile Foundations for river bridges
  - Foundations for flyovers and underpasses
  - Seismic Analysis and Design of foundations
  - Open Foundations in Soft clays with ground improvement
  - Liquefaction affecting foundation design
  - Soil Foundation Interaction
  - Load Testing of foundations
  - Construction challenges in bridge foundations

The abstract along with the full paper may be sent by 15<sup>th</sup> March 2021.

#### April - June 2021 issue: Guest Editor-Dr K G Bhatia

##### Theme: Machine Foundation

The abstract along with your photograph and brief resume may be sent by 15<sup>th</sup> March 2021 and full paper by the end of March 2021.

Articles are invited from i) Members of IASE; ii) Specialists in the field even though they are not members of IASE.

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; iv) the dates for submission of the abstract and Full paper.

As per the laid down procedures all the papers (except invited 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.

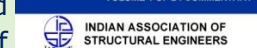
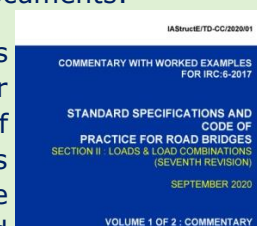
## IAStructE New Publications

As you are aware that IAStructE is undertaking the task of preparing the professional documents and the commentary of various BIS and IRC codes, so that the practicing structural engineers can understand the code better and comply with the requirements of the code with confidence. Under this activity the IAStructE has published the following documents:

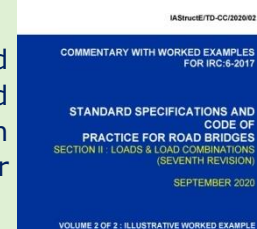
**1. Commentary with Worked Examples for IRC:6-2017** : IAStructE is pleased to announce publication of Commentary with Worked Examples for IRC:6-2017, the IRC code for Loads & Load Combinations for design of Highway Bridges. The commentary and the Illustrative worked examples are printed in two separate volumes. Volume-1 of 2 pertains to the Commentary while Volume-2 of 2 pertains to Illustrative Worked Examples, which has 48 worked examples demonstrating application of various codal clauses.

The documents are now 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>.



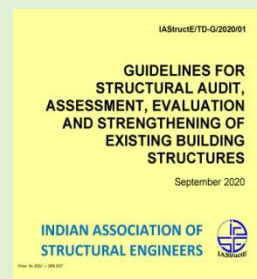
INDIAN ASSOCIATION OF STRUCTURAL ENGINEERS



INDIAN ASSOCIATION OF STRUCTURAL ENGINEERS

**2. Guidelines for Structural Audit, Assessment, Evaluation and Strengthening of Existing buildings Structures** : IAStructE has published this document to guide structural engineers in proper assessment of building structures before issuing structural stability certificate. This guideline may be used by IAStructE members, all other structural engineers, house owners, housing society welfare associations, clients and corporation engineers for 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. However one can read the document by following the link. <http://www.iastructe.co.in/guidelines-for-structural-audit/>



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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. Clause wise Commentary on IS: 13920** : This document has been finalised after wide ranging consultations & debate amongst civil & structural engineering fraternity. A workshop was also organised to discuss and debate various comments received from engineers. The Commentary has already been sent to the Bureau of Indian Standards for further action. 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.



INDIAN ASSOCIATION OF STRUCTURAL ENGINEERS

**4. Clause wise Commentary on IS: 1893 Part 1**: This document has been finalized with the contribution of many members of the association. The Commentary has already been sent to the Bureau of Indian Standards for further action. 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.

## 17<sup>th</sup> Annual General Meeting

The 17th Annual General Meeting (AGM) of the Association will be held online on Thursday, 25th March 2021 at 04:30 PM through Zoom Meeting App. The Agenda for the 17th AGM and the joining link shall be sent to all eligible members of IAStructE.

## Forthcoming Webinars

1. IAStructE is organizing a Webinar on "True Story Behind Morandi Bridge Collapse" on 05 March 2021 at 02:30 PM (IST) through ZOOM. This is the second webinar organised by IAStructE on Morandi Bridge. The first webinar was held in October 2020. The speaker will be Prof. (Dr.) Gian Michele Calvi, who is a worldwide known Professor in Engineering from Italy and who was involved in the forensic investigation of Morandi Bridge Collapse. Mr Alok Bhowmick, President IAStructE will be the Moderator for this webinar. Interested professionals may register through the following link:

[https://us02web.zoom.us/webinar/register/WN\\_vPDni4dYQDW7BmBpT\\_yK2A](https://us02web.zoom.us/webinar/register/WN_vPDni4dYQDW7BmBpT_yK2A)

2. A Webinar on "The Beauty of Structures" by Mr. Knut Stockhusen, Partner at schlaich bergemann partner (sbp) is being organized on 09 March 2021 at 05:00 PM (IST) through ZOOM. Prof Mahesh Tandon, Past President & Governing Council member IAStructE will be the Moderator. Interested professionals may register through the following link:

[https://us02web.zoom.us/webinar/register/WN\\_9NK\\_6HvYTkG7mhZzOBF-Nw](https://us02web.zoom.us/webinar/register/WN_9NK_6HvYTkG7mhZzOBF-Nw)

3. A Webinar on "Net Zero Carbon 2050: Act Right Now" by Mr. Vijay Kulkarni, Past President, Indian Concrete Institute (ICI) & Partner- Midas Techfin Consultants LLP is being organized on 23<sup>rd</sup> March 2021 at 04:30 PM (IST) through ZOOM. Mr. Manoj Mittal, Past President & GC member-IAStructE, will be the Moderator. Interested professionals may register through the following link:

[https://us02web.zoom.us/webinar/register/WN\\_raMnaKd5TEyHCgvhcij-oA](https://us02web.zoom.us/webinar/register/WN_raMnaKd5TEyHCgvhcij-oA)

Registration link: <http://iastructe.co.in/online-refresher-course.php>

## ONLINE REFRESHER COURSE ON **PRE-STRESSED CONCRETE FOR BRIDGES & BUILDINGS**

*20<sup>th</sup> March 2021 till 01 May 2021  
Every Saturday from 14:30 Hours to 18:30 Hours (IST)*



### ABOUT THE COURSE

The main objective of this course is to provide young engineers with an insight in the design of prestressed concrete members and structures through advanced understanding of material and structural behavior. This course is offered to Young Engineers (Graduate / Post Graduates) having 0-5 years of experience in the design and who are not well conversant with the subject. The topic covered include fundamentals of prestressing, Prestressing systems and hard wares, Pre-tensioned and post tensioned members, provision of IRC/IRS/BIS code on prestressing, Analysis, Losses in prestressed concrete, Analysis and design of statically determinate prestressed concrete buildings and bridge structures, post tensioned flat slab designs, case studies of few bridge designs.

The Faculty for this course are all eminent practicing engineers from the industry.

#### REGISTRATION FEE

|   |   |
|---|---|
| IAStructE Members   | : Rs 5,000/- + 18% GST                  |
| Non Members   | : Rs 7,500/- + 18% GST                  |
| Students  | : Rs 2,500/- + 18% GST                  |
| Foreign Nationals   | : USD 130 or INR 10000/- (GST included) |
| <i>(Foreign nationals - 20% discount for members of MoU Associations)</i> |   |
| <i>(E-certificate of participation will be provided)</i>                  |   |

#### SPONSORSHIP OPTION (GST payable on reverse charge)

| ENTITLEMENTS   | DIAMOND SPONSOR<br>(INR 3,00,000) | SUPPORTER<br>(INR 1,00,000) |
|--|-----------------------------------|-----------------------------|
| Presentation Slot  | 15 mins.                          | N.A.                        |
| Advertisement In SED (an official publication of IAStructE published as soft copy) | One Colour Page                   | One Colour Page             |
| Logo In Poster & all related correspondence  |                                   |                             |
| Company Profile to all delegates   |                                   |                             |

#### HOW TO REGISTER

**STEP 1 :** Registration fee shall be paid through NEFT/RTGS/UPI as per bank details given below:  
Beneficiary: Indian Association of Structural Engineers;  
C. Account No.: 10151200388, IFSC:SBIN0007196  
MICR: 110002034 ; Bank: State Bank of India(07196)  
Branch Address: Flyover Market, Defence Colony, ND 110024

**STEP 2:** The details of the participant (Name, Designation, Organization, Email id, Mobile) along with the proof of the payment shall be sent to [iastructe@gmail.com](mailto:iastructe@gmail.com) for registration. Students must send their valid ID card (scanned) along with proof of payment. The registration link for webinar shall be sent prior to the every lecture to the confirmed participants.

For any clarification on the above steps, please contact the IAStructE Secretariat on  
Email [iastructe@gmail.com](mailto:iastructe@gmail.com), Tel 011-45794829

## PROGRAMME FOR COURSE ON PRE-STRESSED CONCRETE DESIGN

**COURSE CO-ORDINATOR : Mr. V N HEGGADE, CEO, STUP Consultants Pvt Ltd**  
(TIMINGS FOR THE COURSE : 14:30 HRS TO 18:30 HRS)

| S.No. | Title*   | DAY      | Duration        | Proposed Faculty*  |
|-------|--|----------|-----------------|--|
| 1     | INTRODUCTION – History and application of Prestressing in all fields (Buildings, Bridges, Aqueducts, Nuclear Plants, Hangars...etc.), Concepts of Pre-stressed and Post Tensioned Concrete - Materials, Methods & Systems. | 20.03.21 | 1.5 Hrs.        | <b>Dr Harshavardhan Subbarao</b><br>CMD, Construma Consultancy Pvt Ltd<br><b>Mr. Vipul Ahuja</b><br>VP (N) IAStructE & Director & CEO, Ahuja Consultants Pvt Ltd |
| 2     | BASICS OF PRESTRESSING - A broad Overview of Prestressing System including PSC anchors.  | 20.03.21 | 1.5 Hrs.        | <b>Mr Vinay Gupta</b><br>Director & CEO, Tandon Consultants Pvt Ltd  |
| 3     | Presentation by Prestressing System Supplier with Video - On-Site Application with Focus on Cable Placement, Stressing, Grouting Operation   | 20.03.21 | 2 X 30 Minutes  | To be identified   |
| 4     | Basic Concept of Flexure Strength, Shear, Torsion, Creep, Prestress Losses (short term & long term) and Deflections  | 27.03.21 | 1.5 Hrs.        | <b>Mr Umesh Rajeshirke</b><br>VP(W), IAStructE & MD – Spectrum Techno Consultants Pvt Ltd  |
| 5     | Full span & Segmental precast technologies for Bridge Superstructure   | 27.03.21 | 1.5 Hrs.        | <b>Mr V. N. Heggade</b><br>CEO, STUP Consultants Pvt Ltd   |
| 6     | Load Case Prestressing – primary effect 'e x P': type of tendons, profiling, force diagram, verification of force diagram during stressing including causes for non-compliances and possible remedies.                     | 27.03.21 | 1 Hour.         | <b>Mr Max Meyer</b><br>Independent Consultant, Singapore   |
| 7     | Mass Use of Precast-Prestressed elements in Metro construction in station buildings, viaducts and double decker.   | 03.04.21 | 1.5 Hr.         | <b>Prof Mahesh Tandon</b><br>MD-Tandon Consultants Pvt Ltd   |
| 9     | Durability of Prestressed Structures   | 03.04.21 | 1.5 Hr          | <b>Mr Max Meyer</b><br>Independent Consultant, Singapore   |
| 10    | Presentation by Contracting Firm with Video - Highlighting The Technologies for Precast Full Span & Segmental Construction   | 03.04.21 | 2 X 30 Minutes  | To be identified   |
| 11    | Design & Construction of precast prestressed sleepers & pretensioned aqueduct- Case studies  | 10.04.21 | 1 Hour          | <b>Mr Alok Bhowmick</b><br>MD, B&S Engineering Consultants Pvt Ltd   |
| 12    | A case study of design of PSC airport hangers & Industrial structure (Samtel factory building).  | 10.04.21 | 1 Hour          | <b>Prof Mahesh Tandon</b><br>MD-Tandon Consultants Pvt Ltd   |
| 13    | Design of Post Tensioned Flat Slab for Buildings - BUILDINGS CASE STUDY  | 10.04.21 | 1 Hour          | <b>Dr. Satish Jain</b><br>MD, Satish Jain Consulting Engineers Pvt. Ltd.   |
| 14    | Presentation by Software Developers - Highlighting The Software Capability in Dealing with Prestressed Structures  | 10.04.21 | 2 X 30 Minutes. | To be identified   |
| 15    | CASE STUDY - BRIDGES-1 : Design of Simply Supported Precast PSC Girder System for Bridges (Post Tensioned as well as Pre-Tensioned)  | 17.04.21 | 1 Hour.         | <b>Mr Anirban Sengupta</b><br>CTO, STUP Consultants Pvt Ltd  |
| 16    | CASE STUDY - BRIDGES-2 : Design of Continuous Precast PSC Girder System for Bridges  | 17.04.21 | 1 Hour          |  |
| 17    | Analysis & Design for prestressing using software and manual checklists for verification of the same   | 17.04.21 | 1 Hour          | <b>Mr Jatinder Pahuja</b><br>MD, Paragon Consultants Pvt Ltd   |
| 18    | Presentation by Contracting Firm with Video - Highlighting Use of Precast Units in Metro Structures  | 17.04.21 | 2 X 30 Minutes  | To be identified   |
| 19    | Advanced concepts of Creep shrinkage and hyper-static effects and creep redistribution effects   | 24.04.21 | 1.5 Hrs.        | <b>Mr Umesh Rajeshirke</b><br>VP(W), IAStructE & MD – Spectrum Techno Consultants Pvt Ltd  |
| 20    | Provisions in IRC, IRS and BIS codes on Prestressing. Discussion on Codes and Standards.   | 24.04.21 | 1.5 Hrs.        | <b>Mr ALOK BHOWMICK</b><br>President IAStructE<br>MD, B&S Engineering Consultants Pvt Ltd  |
| 21    | CASE STUDY – CHANDIGARH-KHARAR PROJECT : Design of Integral Elevated viaduct with precast pretensioned girders integrated with precast prestressed post tensioned pier cap   | 24.04.21 | 1.0 Hrs.        | <b>Mr Sanjay Kumar Jain</b><br>CEO, B&S Engineering Consultants Pvt Ltd  |
| 22    | Design & Construction of Spine and Wing segmental construction, Struttet box segmental construction  | 01.05.21 | 1.5 Hrs.        | <b>Mr Harpreet Singh</b><br>Sr. Project Manager, B&S Engineering Consultants Pvt Ltd   |
| 23    | Repair & Rehabilitation of prestressed concrete Structures   | 01.05.21 | 1.5 Hrs.        | <b>Shri P Y Manjure</b><br>Director, The Freyssinet Prestressed Concrete Co. Ltd   |
| 24    | <b>CONCLUDING SESSION - WITH QUESTION &amp; ANSWER</b>   | 01.05.21 | <b>1 Hour.</b>  | <b>ALL FACULTY AS PANELISTS</b>  |

\* The faculty / subject shown above is tentative subject to the confirmation

## 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.

## How to become a member ?

Membership form and details are available at <http://www.iastructe.co.in/membership-form.html> ; For membership information and other details contact the Indian Association of Structural Engineers Secretariat

## IAStructE 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. [Released]
- 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

## Indian Association of Structural Engineers

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