



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

MESSAGE FROM THE PRESIDENT



Dear Members,

Greetings & Good Wishes on festive season,

Hope all of you are in good health and quite busy in your professional work. Monthly Newsletter of the association is getting good response from our members and other fellow engineers. It is a medium to communicate and to share the details of activities/initiatives with you on monthly basis. Quality of the newsletter is also improving with time. Editor for

the Newsletter Dr. Visalakshi and secretariat deserves great appreciation for that.

It is heartening to note that IAStructE organised several quality webinars & Lectures on subjects relevant to structural engineers. Many webinars had international speakers, panellists & participants as well. Details of such events are included in this newsletter. Refresher course on Seismic Retrofitting of buildings was also concluded this month. Such programs are becoming immensely popular, and members are participating very enthusiastically. We will continue such programs. Your suggestions on topics and speakers are welcome. If you want to share your work/experiences with other structural/civil engineers do contact us. We will be happy to consider such proposals.

As you might be knowing announcement for IAStructE National awards 2021 has been made. You are encouraged to nominate yourself or your work for such awards. I will appreciate if you can circulate this announcement amongst your colleagues. Aim of these awards is to promote excellence in the field of structural engineering.

Issue of our quarterly journal Structural Engineering Digest (SED) dedicated to the theme 'Structural Health Monitoring 'is under printing and shall be released very soon. Dr. Suresh Bhalla Professor IIT Delhi is the guest editor of this issue. Next issue will be on the theme 'Durability of the structures' with Mr. Aman Deep Garg as guest Editor. You may consider sending technical paper or case studies for publication.

Do send your suggestions for new initiatives and feedback on our present activities.

Best regards

Manoj Kumar Mittal President-IAStructE

FROM THE EDITOR'S DESK



Happy and prosperous Diwali greetings to all the readers!!

This month's issue gives a glimpse of all the activities conducted, members can check out for the extended date of IAStructE awards nominations and also look out for the upcoming

events along with the new theme of SED digest.

Do follow, subscribe and like IAstructE events on all digital platforms.

Thanks & Regards,

Dr. Visalakshi Talakokula

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WEBINARS/ EVENTS CONDUCTED

1. Lecture series on "Towards Disaster Resilient India- Earthquake Chapter"

A Lecture series on "Towards Disaster Resilient India – Earthquake Chapter was launched in August 2021. The last lecture in the series on the topic "Protection of Built Environment from Earthquakes through Mitigation and Preparedness Efforts." was organized on 07 October 2021

Speaker: Dr. R. Pradeep Kumar, Vice President (South), IAStructE and Professor, IIIT Hyderabad.

Moderator: Prof. C. V. R. Murthy, Professor IIT Madras

Panelist: Prof Mahesh Tandon, GC member IAStructE and Mr Alok Bhowmick, Immediate Past

President

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

The webinar can be viewed at the following link: https://youtu.be/lzP3hQObF2w



Fig. 1: Glimpses from the webinar

2. Webinar on "Strategies for Enhancing Resiliency of Modern Concrete Structures under Fire Hazard"

The webinar on "Strategies for Enhancing Resiliency of Modern Concrete Structures under Fire Hazard" was organized on 08 October 2021 through Zoom. This 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.

Speaker: Dr. Venkatesh Kodur, University Distinguished Professor & Director, SAFE-D Center, Michigan State University, USA

Moderator: Mr. Manoj Mittal, President IAStructE,

Panelist: Mr. R.C. Sharma, Former Director, Delhi Fire Service, Dr. Virendra Kumar Paul, Professor, School of Planning & Architecture, Delhi, Mr. ArunKumar S., Scientist 'E' & Head – Civil Engineering Department, Bureau of Indian Standards

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



Fig.2: Glimpses from the webinar

3. Webinar on "Structural Health Monitoring for Rehabilitation of Structures in the Era of Digitalization"

The webinar on "Structural Health Monitoring for Rehabilitation of Structures in the Era of Digitalization" was organized on 09 October 2021 through Zoom.

Speaker: Ms. Rithika Nanaiya, Assistant Manager and Ms. Sahana B. Gangal, Senior Engineer, Tata Consulting Engineers Ltd (Bangalore)

Moderator: Ms. Anamika Kadam, GC Member IAStructE and & DGM-Civil, Larsen & Toubro Construction Pvt. Ltd

Vote of thanks given by Dr. Visalakshi Talakokula, Honorary Secretary, IAStructE

The webinar can be viewed at the following link: https://youtu.be/jYL1j7h9VI4



Fig. 3: Glimpses from the webinar

4. Webinar on "Automation and Computational Design of Bridges

The webinar on "Automation and Computational Design of Bridges" was organized on 23rd October 2021 through Zoom.

Speakers: Mr. Anand Laxman Desai, HOD-Bridges, Mr. Aniruddha Chande, Senior Design Engineer & Team Lead, Ramboll India,

Moderator: Mr. Umesh Rajeshirke, Vice President (West) IAStructE and Managing Director, Spectrum Techno Consultants Pvt. Ltd.

Dr Shilpa Pal, GC member IAStructE briefed about the webinar and introduced the Moderator

On this occasion Mr Alok Bhowmick, Immediate Past President IAStructE and Mr Aditya Sharma, Director - Major Crossing-MEAP (Middle East & Asia Pacific) were also present.

The webinar can be viewed at the following link: https://youtu.be/aSNZf4M7RmE



Fig. 4: Glimpses from the webinar

ONLINE REFRESHER COURSE

5. Online Refresher Course on "Seismic Rehabilitation and Retrofitting of Buildings"

Online Refresher Course on "Seismic Rehabilitation and Retrofitting of Buildings", was launched on 04 September 2021 and the concluding session was organized on 02 October 2021. The lectures were being organized on every Saturday from 03:00 PM to 06:00 PM (IST). Dr.Shilpa Pal, GC Member, IAStructE& Associate Professor, DTU is the Course Coordinator and Mr. Sandeep Shah, Country Head and MD, Taylor Devices, India and Fellow IAStructE is the Course Co-Coordinator. The course is supported by Taylor devices India, Mageba bridge products Pvt. Ltd., Construction Equipment Company and Dextra India. The courses was attended by 145 delegates. Mr. Sanjay Pant, Deputy Director General (Standardization-II), Bureau of Indian Standards and Mr. ArunKumar S., Scientist 'D', CED, BIS were the Panelist during the Inaugural session. Prof Mahesh Tandon, Past President and GC member IAStructE was the special Panelist for the entire course. Dr. Harshavardhan Subbarao was invited as the Panelist during the fourth session. The presentations were made by the following eminent speakers.

- Prof. C.V.R. Murty, Professor, IIT Madras
- Prof. Yogendra Singh, Professor, IIT Roorkee
- Prof. R. Pradeep Kumar, Professor, IIIT Hyderabad
- Ms. Sangeeta Wij, Managing Partner, SD Engineering Consultants LLP

- Ms. Alpa Sheth, Managing Director, VMS Consultants Pvt Ltd.
- Prof. Durgesh Rai, Professor, IIT Kanpur
- Prof. P.R. Bose, Retd. Prof. DTU, Delhi & Associate Director, DDF Consultants
- Dr. Andreas Lampropoulos, Principal Lecturer, University of Brighton, UK
- Dr Eftychia Apostolidi, Institute of Structural Mechanics and Design, Technical University of Darmstadt, Germany
- Prof G L Sivakumar Babu, Professor, Geotechnical Engg Division, Indian Institute of Science, Bangalore
- Mr. Evan Reis, Executive Director, US Resiliency Council
- Dr. Hemant Kr. Vinayak, Associate Professor, NITTTR, Chandigarh
- Mr. Sandeep Shah, Country Head and MD Taylor Devices India

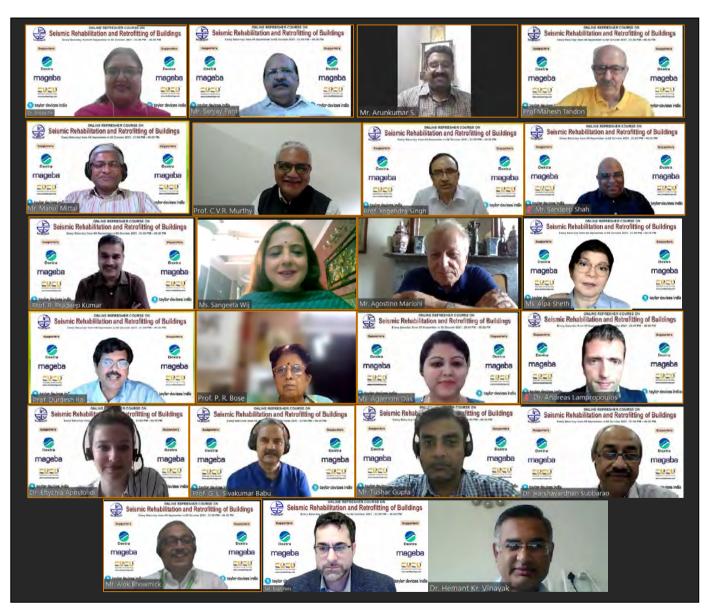


Fig.5: Glimpses from the Online Refresher Course

6. Webinar on "Intelligent Monitoring of Infrastructure Assets (IMIA)"

The webinar on "Intelligent Monitoring of Infrastructure Assets (IMIA)" was organized on 28th October 2021 through Zoom

Speakers: Mr. Conrad Bessemer, Executive Chairman & Co-Founder, Prophecy Sensorlytics LLC

Mr. Sudip Mazumder, Chief Executive Officer, Prophecy Sensorlytics LLC

Moderator: Dr. Harshavardhan Subbarao, Fellow IAStructE and CMD, Construma Consultancy Pvt. Ltd.

Welcome Address given by Mr. Manoj Mittal, President, IAStructE

The webinar can be viewed at the following link: https://youtu.be/9fP9_yZAf58



Fig. 6: Glimpses from the webinar

7. Gujarat State Centre Activity

Webinar on "The Iconic Structure Mahatma Mandir" Gandhinagar, Gujarat.

IAStructE Gujarat State Centre organized a webinar on The Iconic Structure Mahatma Mandir, Gandhinagar, by Mr. Hrushikesh Patel, Principal, Parvati Techno Consultants, Ahmedabad, on 2nd October 2021 through Google Meet. The session was Moderated by Dr Anal Sheth, Chairperson, Gujarat State Centre.

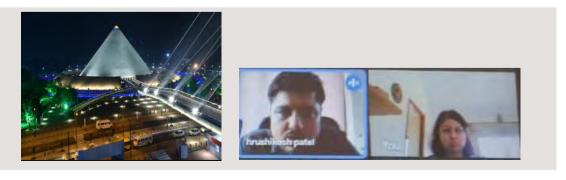


Fig.7: Glimpses from the webinar

8. IAStructE DTU Student Chapter Activity

Lecture on the topic "Health Monitoring of Bridges through Instrumentation".

IAStructE DTU Student Chapter organized a webinar on "Health Monitoring of Bridges through Instrumentation" on 10th October through Google Meet. Mr. Ganesh Kumar Sahu, Senior Principal Scientist, Bridge Engineering and Structures Div., CSIR - Central Road Research Institute was the Speaker. The session was moderated by Dr. Shilpa Pal, GC Member IAStructE & Associate professor, Delhi Technological University.



Fig.8: Glimpses from the webinar

9. IAStructE Southern Region Activity

Lecture on "Seismic retrofit schemes for RC structures and local-global consequence"

The October IAStructE-south online monthly lecture was held on 29th October 2021. The lecture was on "Seismic Retrofit Schemes for RC Structures, Local-Global Consequence" by Dr. Ajay Chourasia, Sr. Principal Scientist & Professor (AcSIR), CSIR-Central Building Research Institute, Roorkee. Vidya Jyothi Institute of Technology, Hyderabad, organized the event which Anurag University and IIIT Hyderabad supported. About a hundred participants comprising of practicing engineers, academicians, research scholars, and students from India and abroad participated in the lecture. The honourable president of IAStructE, Shri. Manoj Mittal, graced the occasion by welcoming the participants and highlighting the importance of structure audit and practice of rehabilitation and retrofitting to capacity building.

The lecture was a comprehensive presentation on the technologies and the practical aspects of retrofitting schemes. The talk began with a detailed explanation of the evaluation of structures and the process of repair, rehabilitation, and retrofitting. Various retrofitting methods, materials available and used, the strategies to be implemented, and their associated challenges were presented in a lucid manner. The global assessment of the effect of repair methods on stiffness, strength, and ductility, the three most important seismic response parameters, and their role in decision-making to satisfy the respective intervention objectives were discussed in detail. The effect of the retrofit on the local and global response of a structure was discussed. The lecture culminated with the presentation of three case studies on retrofitting an old building, a building damaged by fire, and a jetty. Discussing the theoretical aspects of the retrofitting schemes and their implementation in the case studies evoked the interest of the participants.



Post the lecture the participants applauded the lecture and its significance. The video of the lecture is made available at YouTube link IAStructE-Retrofit for the benefit of the members who couldn't attend the lecture.



Fig. 9: Glimpses from the webinar

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 NOMINATIONS - IAStructE NATIONAL AWARDS 2021

IAStructE Awards 2021 IAStructE is calling for nominations for the National Awards Competition for the year 2021. The last date for receipt of nominations has been extended till **22**nd **November 2021.**

The nominations forms for various categories can be downloaded from the following link: http://iastructe.co.in/iastructe-national-awards-2021.php

IAStructE National Awards 2021

IAStructE Invites Nominations for the following categories of Awards (Instructions & Terms are given in the nomination forms of each category)

- 1. OUTSTANDING STRUCTURE OF THE YEAR (Two Awards)
 - i) Buildings: Residential & Commercial buildings, Hospitals, Schools etc.,
 - ii) Other structures: Bridges, Large span space structures for sports, exhibitions etc, Industrial structures, Monuments
- 2. PROMISING YOUNG STRUCTURAL ENGINEER AWARD
- 3. OUTSTANDING STRUCTURAL ENGINEER AWARD
- 4. OUTSTANDING WOMAN STRUCTURAL ENGINEER AWARD
- 5. BEST M. TECH THESIS IN STRUCTURAL ENGINEERING

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

http://iastructe.co.in/iastructe-national-awards-2021.php

Last date for receipt of nominations has been extended to 22nd November 2021

THE AWARDS

All Awards shall consist of a Plaque along with a Certificate & Citation except that the Best M.Tech Thesis Awardee will get in addition a cash prize of Rs 20,000/-

The Award Winners can use the IAStructE logo on their print and promotion material by mentioning the year of the award and the name of the Indian Association of Structural Engineers

IAStructE reserves the right to after the number of awards stipulated above.

Indian Association of Structural Engineers

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CALL FOR PAPERS FOR THE THEME BASED ISSUE OF SED JOURNAL

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

October – December 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 November 2021 and full paper by end of November 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

Sub-themes:

- Environmental impact on sustainability of precast concrete
- Sustainability of precast concrete buildings
- Sustainability of prefabricated buildings
- Sustainable performance of precast buildings
- Performance of precast structural connections
- Achieving sustainability with precast concrete
- Sustainability with prefabrication
- Eco-efficiency and building optimization, potential of prefabricated structures

Interested professionals may send the abstract along with their photograph and brief resume by 30th November 2021 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
- Casting, Handling and Storing Precast Segments in Casting Yard

Interested professionals may send the abstract along with their photograph and brief resume by 30th November 2021 and full paper by end of March 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.

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 (SEVENTH REVISION)

NOVEMBER 2020

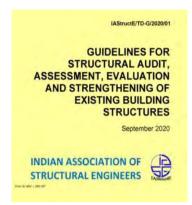
VOLUME 2 OF 2 : ILLUSTRATIVE WORKED EXAMPLE

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

"Fellow" Grade

M/S No	Name	Designation, Organization	City
F-502	Mr. Gautam Kumar Bhaduri	Partner, Poineer Techno Consultants	Darjeeling (WB)
F-503	Mr. Surya Srinivas Nistala	Vice President (Engg), NCC Ltd	Hyderabad

"Member" Grade

M/S No	Name	Designation, Organization	City
M-318	Mr. Nishad Nagesh Kulkarni	Co-founder / Partner, Stellar Engineers	Aurangabad (Maharashtra)
M-319	Dr. Satadru Das Adhikary	Assistant Professor, IIT(ISM) Dhanbad	Dhanbad (Jharkhand)
M-320	Mr. Surajit Ghosh	Director (Design), Kristi Engineering Services Pvt Ltd	Siliguri (WB)

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 thatits 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