

IAStructE



Newsletter of the Indian Association of Structural Engineers

www.iastructe.co.in

February 2023

MESSAGE FROM THE PRESIDENT



Dear Friends,

Greetings!!

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

more improvement in due course of time.

Structural Engineering Digest (SED) Jan-Mar 2023 issue dedicated to the theme of "Structural Engineering for Sustainable Development" with Mr. Vijay R. Kulkarni as Guest editor. Work on it is in progress. You may like to contribute your papers and case studies for the same. Confidential structural failure reports are also being invited for publication in the next issue of CROSFALL. You may contribute any structural failure for publication. As you know identity of the reporter and the project is not disclosed. It is purely for learning purposes. Few more guidelines are also in the printing stage and shall be released soon.

As mentioned earlier a new program of accreditation of engineers as 'Accredited Structural Engineer IAStructE' has been launched on first January 2023. It is expected to raise the standards of structural engineering practice in the country. If interested, then apply as soon as possible and share this information with others. I am happy to report that a refresher course on "Strut & Tie models for structural concrete" conducted by us in association with fib was extremely successful. Some time back we had a meeting with President IStructE UK, Mr. Matt Byatt & Mr. Darren Byrne during their visit to New Delhi. Various issues of mutual interest were discussed. We are expecting further more close interaction with them in future.

IAStructE has started the process of elections for the new Governing Council for the term 2023-25. Polling through secret ballot in Online mode shall be held between 17th Mar to 23rd Mar 2023. All eligible corporate members will receive communication from election officer on their registered email ID. Do participate in the election process. New Leadership & the council is always good for innovative ideas and new initiatives and hence for the growth of any organization.

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

Best regards,

Manoj Kumar Mittal President-IAStructE

FROM THE EDITOR'S DESK



Warm greetings to all the readers!!

It is my pleasure to introduce the latest edition of our newsletter. In this issue, we have gathered some of the most interesting and relevant news, events, and updates from our field. We start

with an interaction with President IStructE, UK to develop mutual relations for the benefit of structural fraternity. We also have an insightful article on "Message from Turkey Earthquake", additionally, we have a feature on the recently concluded event in collaboration with fib. Finally, we are excited to share some of the latest updates and upcoming events.

I hope you enjoy reading this edition of our newsletter and find it informative and engaging. As always, we welcome your feedback and suggestions for future topics.

Thanks & Regards,

Juli

Dr. Visalakshi Talakokula

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Meeting with President, IStructE, UK

Mr. Manoj Mittal, President IAStructE along with Prof. Mahesh Tandon, Past President & GC Member IAStructE, and Mr. Alok Bhowmick, Immediate Past President, IAStructE had a meeting with President IStructE, Uk Mr. Matt Byatt & Mr. Darren Byrne, Deputy Chief Executive. and their Delhi representative Mr. Sonai Saravanan on February 2023 at India International Centre, New Delhi to discuss the issues of mutual interest.



Fig 1. Glimpses of meeting with President, IStructE, UK

Online Events:

IAStructE and The International Federation for Structural Concrete, fib successfully co-organized an online course on "Strut & Tie Models in Structural Concrete" from 21 January to 11 February 2023. This course was based on a set of 13 recorded lectures. The lectures were organized on every Saturday which was attended by 223 delegates. Mr. Manoj Mittal, President IAStructE gave the welcome address during the inaugural session, the course was moderated by Dr. Harshavardhan Subbarao, CMD Construma Consultancy Pvt. Ltd., Mumbai and Mr. V. N. Heggade, Proprietor of DECon Complete Solutions, Mumbai. Mr. Alok Bhowmick, Chairman, PD & TE Committee, IAStructE attended all the sessions as panelists and also gave a vote of thanks during the concluding session on 11.02.2023. The course was well appreciated by the participants.

The following authors from *fib* were attended the session as panelists as follows:

- Dr. Jamie Mata Falcon, ETH Zurich, Switzerland
- Dr. Miguel Fernández Ruiz, Universidad Politécnica de Madrid, Spain
- Dr. Miguel Filipe Passos Serio Lourenço, JSJ,Lda, Portugal
- Dr. Carlos Meléndez Gimeno, Esteyco SA, Spain
- Dr. Duarte Viula Faria, Muttoni et Fernández, Ingénieurs Conseils SA, Switzerland
- Dr. Stathis Bousias, University of Patras, Greece
- Dr. Miguel Pedrosa Ferreira, CSI/Univ. Coimbra, Portugal

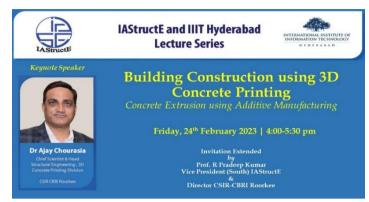


Fig. 2 Glimpses for the online course

IAStructE Southern Region Activity:

IAStructE and IIIT Hyderabad Monthly Lecture Series

Lecture 7 of the joint lecture series by IAStructE with IIIT, Hyderabad was held on 24th February 2023. The lecture was on " 3D Concrete Printing in Construction: Concrete Extrusion using Additive Manufacturing" by Dr. Ajay Chourasia, Chief Scientist & Head, Structural Engineering , 3D Concrete Printing Division, CSIR CBRI Roorkee. IIIT Hyderabad organized the event. About fifty participants comprising of practicing engineers, academicians, research scholars, and students



from India and abroad participated in the lecture. The honorable Vice President (South) IAStructE, Prof. R Pradeep Kumar, gave welcome address and highlighted the importance of the lecture.

Due to rapid urbanization and other factors, research into emerging technologies in structural engineering is required to meet the housing and infrastructure demands. Although they do not completely replace the current methods, they are assist them to cater to the needs. 3D printing an emerging technology which is an additive manufacturing technique used to fabricate various types of products and structures using various raw materials, directly from 3D models. The lecture began with an introduction to 3D printing technology, followed by a discussion of its benefits in the construction industry in terms of design flexibility, customization, cost reduction, time savings, workforce reduction, and sustainability. In addition how, 3D Concrete Printing is essential for resolving the housing shortage in numerous regions and reducing the pollution caused by construction was explained. The discussion defining the reinforcement requirement and technique for implementation, sustainability, and the necessary guidelines for 3D printing in the construction industry intrigued the audience. Participants enjoyed the lecture tremendously and posed numerous intriguing questions. In the question answer session, Dr. Ajay Chourasia discussed the limitations and provided a subtle yet profound overview of the way forward.

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

The next IAStructE online monthly lecture will be held in the month of March 2023.

IAStructE Student Chapter Activity:

IAStructE - IIIT, Hyderabad Student's Chapter

Title of the event: Guest Lecture on "Ultra-High-Performance Fibre Reinforced Concrete–From Fundamentals to Applications in Bridge Engineering"

Date & Venue: 23 February 2023 (online)

Proceedings of the event: IAStructE – IIIT Hyderabad student's chapter of Earthquake Engineering Research Centre, conducted an online Guest Lecture on the topic of "Ultra-High-Performance Fibre Reinforced Concrete – From Fundamentals to Applications in Bridge Engineering" on 23rd February 2023. Dr. Vanama Raghava Kumar, Assistant Professor in the Department of Civil Engineering at the National Institute of Technology Trichy was the keynote speaker for the event. He gave an overview of the Ultra-High-Performance Fibre Reinforced Concrete (UHPFRC), its construction methodology, proportioning of the constituents, the significance of fibre materials and its size, and the successfully executed UHPFRC projects. Further, he also highlighted the applications of UHPFRC in different countries and discussed various codal provisions. Finally, the participants had a very insightful discussion at the end of the webinar.



Fig 3. Glimpses from the Lecture

IAStructE - DTU, Delhi Student's Chapter

Title of the event: Workshop on "Design & Analysis of structures with Staad Pro & Revit Software

Date & Venue: 28 February 2023

Proceedings of the event: Shape My Skills, in collaboration with IAStructE DTU, conducted a successful workshop on Revit and STAAD Pro, training 90 students from M. Tech and B. Tech programs. The workshop aimed to enhance students' skills in the areas of BIM and Structural Analysis, and to provide them with practical insights into the software tools used in the industry. The participants gained valuable knowledge from industry experts and hands-on exercises, which will prove to be beneficial in their future careers as structural engineers.

Additionally, all participants were provided with Bentley Certification upon completion of the workshop, which will validate their newly acquired skills and enhance their professional profile. This certification will be a valuable asset for the participants as they venture into the job market or seek further education opportunities. The workshop was a great success, empowering the students with the necessary skills and knowledge to succeed as structural engineers in the industry.



Fig 4. Glimpses from the Workshop

Forthcoming Events:

Event	Topic	Speakers	Date &
			Timing
FT Lecture series – 03 CEPT Student Chapter	"Plan Before Ban"- Waste Plastics Registration link: https://cept-ac- in.zoom.us/meeting/registe r/tZAsc- qprzgpE9xMgVLBcBJqeLGy kq0NlhSV	Dr. Rajagopalan Vasudevan, Coordinator TCE ENVIS RP Professor, Dept. Of. Chemistry Thiagarajar College Of Engineering, Tamil Nadu, India	03 March 2023 at 05:00 PM
Panel Discussion "Turkey Earthquake - Lessons for India" Registration link: https://us02web.zoom.us/ webinar/register/WN_iFB4 f_4aQRGE7upvffziqQ		1) Prof. Dr. Alp Caner, Professor, METU, Turkey 2) Dr. R. Pradeep Kumar, Vice-President, IAStructE(S) 3) Mr. Manoj Mittal, President, IAStructE 4) Prof. Mahesh Tandon, Past President & GC member, IAStructE 5) Mr. Alok Bhowmick, Imm. Past President, IAStructE 6) Ms. Sangeeta Wij, GC Member, IAStructE 7) Mr. Kamal Kishore, Member Secretary, NDMA 8) Prof. Raghukanth, Professor, IIT Madras 9) Dr. C. V. R. Murthy, Professor, IIT Madras	07 March 2023 at 04:00 PM

Call for papers for CROSFALL:

CROSFALL Editorial Board invites reports for the forthcoming issues. Interested candidates can sent the reports about structural safety issues related to all types of structures (i.e. buildings, bridges, tunnels, industrial structures etc.) in the built environment. The reporting can be related to:

- Structural failures,
- Poor Design and Detailing, Lack of Seismic Safety in planning
- Safety concerns about high risk erection schemes at Site
- Safety concerns on Temporary Works
- Near misses, or observations relating to procedures followed at site, which may lead to failures or collapses.

Reports do not have to be about current activities so long as they are relevant. Small scale events are equally important - they can be the precursors to more major failures. Report might relate to a specific experience or it could be based on a series of experiences indicating a trend. No concern is too small to be reported and conversely nothing is too large. Reports should aim to include information that will help others to learn from the safety issue identified.

To submit the report please go through the following link: www.iastructe.co.in/crosfall.php

Call for papers for the theme based issue of SED journal:

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

- **★ January March 2023 issue**: Theme: Structural Engineering for Sustainable Development Guest Editor: Er. Vijay R. Kulkarni
- ★ April June 2023 issue: Theme: Liquid Retaining Structures Guest Editor: Mr. L. K. Jain

Interested professionals may send their abstract along with the full paper on any of the above issues along with their photograph and brief resume latest by 15 March 2023 or at the earliest convenience. Articles are invited from i) Members of IAStructE; ii) Specialists in the field even though they are not members of IAStructE.

Interested authors/contributors may kindly mail to iastructe@gmail.com regarding i) Broad guidelines on areas of coverage; ii) size of the article; iii) format of paper submission. As per the laid down procedures all the papers shall be sent to the referee for review and the comments will be informed to the authors for incorporating the same. Papers shall be published after peer review & approval of SED editorial board.



Advertisement Tariffs:

Structural Engineering Digest (being published in PDF format)

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

IAStructE Monthly Newsletter (being published in PDF format)

	Rates for advertisement	Advertisement Size
Full Page	Rs. 10,000 per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking	9.5 inch x 7 inch
Half Page	Rs. 7,000/- + 18% GST per issue, 10% rebate for quarterly, 20% rebate for half yearly and 30% rebate for yearly booking.	4.75 inch x 7 inch
1/8th of a Page	Rs. Rs. 2,000/- + 18% GST per issue, 10% rebate for quarterly, 20% rebate for half-yearly, and 30% rebate for yearly bookings. (Only for IAStructE Members)	Standard size of Business Card

IAStructE Publications 🕮:

1. Commentary with Worked Examples for IRC: 6-2017: It is a document having commentary with worked example on IRC: 6-2017 (The code for Loads & Load Combinations for design of Highway Bridges). This commentary is in two separate volumes. Volume-1 pertains to the Commentary while Volume-2 pertains to Illustrative Worked Examples. It has 48 worked examples demonstrating application of various codal clauses

IAStructE/TD-CC/2020/02	IAStructE/TD-CC/2020/01
COMMENTARY WITH WORKED EXAMPLES FOR IRC:6-2017	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	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	VOLUME 1 OF 2 : COMMENTARY



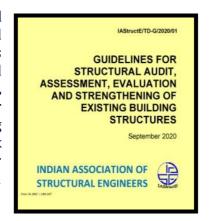
Indian Association of Structural Engineers

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.



Message on Turkey Earthquake:

IAStructE is shocked and deeply saddened by the events in Turkey and northern Syria where series of major earthquakes have claimed more than 40,000 lives, with the death toll expected to rise further over the coming days. Our deepest sympathies go out to the families and loved ones of those who lost their lives or were injured, and who lost their homes in the earthquakes. We offer our support and solidarity to all those who are in distress, as they begin the long process of recovery.

IAStructE is heartened by India's and the international community's response to this tragedy, which has seen dozens and dozens of countries and many NGOs pledging material and monetary support to Turkey and northern Syria during their hour of need.

India has been quick to respond to the devastating earthquake. It was among the first countries, to rush emergency medical aid, as well as rescue teams to the region. Code named 'Operation Dost', India sent out 250 personnel, specialized equipment, medicines, dry rations, and provisions to set up a 30-bed self-sustained field hospital of the Indian army to Turkey. 99 specially trained personnel from the army will operate the field hospital complete with operation theatre, ventilators, and x-ray facilities.

Tragedies like this one bring out the best in our world and IAStructE is confident that global support will ensure that all those affected do not face the challenging days ahead alone.

Much more assistance will be needed going forward as the region looks to recover from the disaster and we trust that the international engineering, construction, and infrastructure community, including the humanitarian relief organizations Red Crescent, RedR International and others, will also be ready to offer their assistance when the time comes.

At times like these, it is important to remember the strength and resilience of the human spirit, and the power of individuals and communities to come together. We are confident that the people of the region will overcome this tragedy, and we stand with them in their efforts to rebuild and recover.

-By Mr. Alok Bhowmick, Imm. Past President & GC member IAStructE

■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 **IAStructEWebinar:-** Subscribe and press bell icon

https://www.youtube.com/channel/UCvv7ojX09Dxq1WtP_yHZTKw

New Members:

"Fellow" Grade

M/S No	Name	Designation, Organization	City
F535	Mr. Hemant Gor	Technical Authority at KBR International	Mumbai
F536	Prof. Abdul Rashid Dar	Professor at NIT, Srinagar	Srinagar
F537	Mr. RakeshVaradkar	Director at Spectrum Techno Consultants Pvt. Ltd.	Mumbai
F538	Dr. Ramachandra V.	Principal Advisor at UltraTech Cement Ltd.	Banglore

"Member" Grade

M/S No	Name	Designation, Organization	City	
	Dr. Mohammad Adil Dar	Marie Curie Fellow in Steel Structures at	ШИ	
M358	Dr. Monammad Adii Dar	University of Sheffield	UK	
	Mr. Mohiddin Olekar	Principal Structural Engineer & Partner at	(Hubli)	
M359	wir. Momadin Olekar	MAJESTIC Engineering & Construction	Karnataka	

"Associate Member" Grade

M/S No	No Name Designation, Organization		City
AM420	Mr. Vishnu J.	Asst. Engineering Manager at L&T Hydrocarbon Engineering	Kerala
AM421	Mr. Syed Mohammad Ali	Structure Engineer at DNS design Pvt. Ltd.	Agra
AM422	Mr. Sagar Gandhi	Junior Design Engineer at CASAD Consultants Pvt. Ltd.	Ahmedab ad
AM423	Mr. Dhruva Mahimtura	Director at Mahimtura Consultants Pvt. Ltd.	Mumbai
AM424	Mr. Ramit Garg	Design Engineer at Elite Structures	Punjab

"Student Member" Grade

03 students: 01 from IIT, Madras, 01 from BITS Pilani & 01 from Banasthali Vidhyapith, Rajasthan

IAStructE Library 🕮

IAStructE has set up a library at K-69 A, Basement Kalkaji, New Delhi. It has a collection of good technical books and journals related to civil & structural engineering. Members staying in the vicinity are encouraged to utilize this facility, and if you want to contribute your books and journal to the library you are always welcomed.





IAStructE Library



Chartered Structural Engineers (ASE - IAStructE)

The IAStructE program for Accreditation as Accredited Structural Engineers (ASE – IAStructE) is suitable for practicing structural engineers who have experience in the structural design field and have a good understanding of applicable design codes/standards in India.

This accreditation will help Structural Engineers in India to set a benchmark of proven professional & technical excellence and raise the levels of structural engineering practice in the Country. The entire program would be on the basis of a two-stage process consisting of an interview for the assessment of Initial Professional Development (IPD) followed by a written examination based on actual problem-solving. Applicants have to demonstrate their competence in the designated 13 core objectives on which they will be assessed during the interview. The applicant would then require to clear the examination by answering any single chosen question from the options given in the question paper with a minimum level of marks stipulated. Both stages are mandatory to clear the assessment process and thus to get recognition.

An Accredited Structural Engineer – IAStructE is someone who wishes to:

- validate their comprehensive experience and understanding of all types of structural engineering work and managerial capabilities
- demonstrate their competence on the basis of IPD and Continuous Professional Development activities in the field

Details of the application and assessment requirements, fees, and available dates can be consulted in the relevant fields given in the tabs below. They summarize the general application process, the assessment requirements, and the steps needed to qualify for the ASE-IAStructE accreditation.

The complete information about the entire process along with the application form and annexures can also be obtained from a booklet, **which can be downloaded from the following link:** https://www.iastructe.co.in/ase-iastructe-accreditation.php

This assessment process will be held bi-annually, being initiated in January & July respectively.

AboutIAStructE

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