

Creating Value Ethically for Engineers

# FROM THE PRESIDENT'S DESK





## Dear Members and Friends,

I am delighted to inform you that CEAI conducted a physical Seminar on "Quality of DPR and Construction of Highways" on the 9<sup>th</sup> and 10<sup>th</sup> of January 2024 at New Delhi which was very well attended by all stakeholders. Hon'ble Minister of Road Transport and Highways, in spite of his very busy schedule, spared time and shared his views and gave valuable suggestions. The presentations had high quality technical content. More details of the seminar are given in this Newsletter. CEAI will do all the necessary follow up. I would like to convey my sincere thanks to all of them who provided us the physical, financial, moral and other support which were helpful in making the event a grand success.

It is the prime duty of each one of us Professionals to exercise our full power and resources to deliver a quality product, so that we can look back with satisfaction and feel proud of what has been done. The investments being made in the infrastructure sector are large, it therefore behoves that a little extra effort be made to achieve or exceed the specified quality standards since that would make a large difference in the durability of the works done.

Apart from the quality, another important aspect is sustainability which, as being stressed time and again, requires to be given due consideration in planning, design, construction and maintenance.

SEMINAR ON QUALITY OF DPR AND CONSTRUCTION OF HIGHWAYS

**CEAI NATIONAL AWARDS 2023** 

WORKSHOP ON "AI, VR &AR FOR ENGINEERING PROJECTS

SEMINAR ON "QUALITY OF DESIGN AND CONSTRUCTION FOR SUSTAINABLE INFRASTRUCTURE"

FROM DIRECTOR'S DESK

**MEMBER NEWS** 

**VIEWPOINT** 

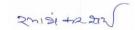
FIDIC PUBLICATIONS

FIDIC TRAINING



We have to consider the life cycle effect of the materials used and the processes adopted for various activities. Environmental and ecological considerations should also be given due importance. With these in view, CEAI is planning to organize yet another 2-day physical seminar on "Quality of Design and Construction for Sustainable Infrastructure" in the month of April 2024. I request all our fellow professionals to attend in large numbers.

### Warm regards,



R S Sharma

#### SEMINAR ON "QUALITY OF DPR AND CONSTRUCTION OF HIGHWAYS"

The Consulting Engineers Association of India organised a Seminar on the "QUALITY OF DPR AND CONSTRUCTION OF HIGHWAYS" on 9<sup>th</sup> and 10<sup>th</sup> January 2024 at Hotel Le Meridien, New Delhi. The seminar was supported by the Ministry of Road Transport and Highways, National Highways Builders Federation, Indian Roads Congress and the Council of Scientific and Industrial Research - Central Road Research Institute.

The Seminar was inaugurated by Mr. PVVSS Ravi Prasad, Director General (RD) & SS, Ministry of Road Transport & Highways. Mr R S Sharma, President CEAI welcomed the Chief Guest and participants and gave a brief about the Seminar. Mr K K Kapila, Chairman ICT Pvt Ltd delivered the Keynote Address.

Mr. Nitin Gadkari, Hon'ble Union Minister of Road Transport and Highways addressed the delegates during the concluding session of the first day of the seminar. He urged the participants to design safe highways conforming to world standards.



President CEAI welcoming the Chief Guest



President CEAI delivering his Welcome Address



Hon'ble Minister of Road Transport and Highways Addressing the gathering



Shri



PVVSS Ravi Prasad, DG(RD) & SS delivering Inaugural Address



Shri KK Kapila Chairman ICT Ltd delivering Key Note Address



Shri JVVL Narayana Vice President CEAI proposing Vote of Thanks

The Seminar was aimed at identifying the issues which are responsible for the poor quality of DPR as well as construction and come out with possible solutions for their improvement.

The Seminar comprised 7 sessions in addition to the Inaugural and the Concluding Sessions. The first day of the seminar was devoted to the Quality of DPRs. A session was included exclusively on Innovative Materials and Technology.

The second day was focused on the Quality of Construction. Considering the premature failure of Pavements and Reinforced Earth Walls, and Bridge Structures, a dedicated session was held on that subject in which case studies were presented by eminent scientists and engineers.

There was a consensus from all concerned that the quality of DPR and construction are not up to the mark and there is an urgent need for improving the quality and bringing them up to specified standards and requirements adopted across the world. A number of factors which are responsible for the current state were identified and the possible ways for improvement and overcoming them were discussed. It was evident that all stakeholders will have to work together to bring about the change which necessitates strong determination and resolve, specially from the top management of the government departments, authorities, bodies, consultants, investigation agencies, and contractors for improving the quality.

**Sponsors:** There were two Platinum, two Gold, five Silver and one Bronze sponsors who provided a great help in organising the event.

Platinum Sponsors		Gold Sponsors	
1.	Aarvee Associates Architects, Engineers &	1.	Intercontinental Consultants &
	Consultants Pvt Ltd		Technocrats Pvt Ltd
2.	G R Infraprojects Limited	2.	Lion Engineering Consultants Pvt Ltd
Silver	Silver Sponsors		e Sponsor
1.	Maccaferri Environmental Solutions Pvt Ltd	1.	Theme Engineering Services Pvt Ltd
2.	Oriental Structural Engineers Pvt. Ltd		
3.	Strata Geosystems India Pvt Ltd		
4.	Sugam Technocrats Pvt Ltd		
5.	TechFab (India) Industries Ltd		



A few photographs showing various sessions, speakers and participants are given below:



Lighting of the Lamp



A View of participants



Mr Navneet Sharma welcoming the Session Chair, Mr G Sharan, Former DG Road Development



Mr Sanjeev Kumar, Director IAHE making his presentation



Mr R K Pandey, former Member NHAI making his presentation



Q&A session



Session Chair & Speakers – Session 1 Quality of Design



President welcoming Chairperson and Speakers – Session 2 Quality of Design – Improvement



Mr M Kishore Kumar of Aarvee making his presentation



Mr Indrajit Ghai of GHAI Pvt Ltd making his presentation



President welcoming Chairperson and speakers for Session 3: Innovations, new materials & technologies





Prof Manoranjan Parida, Director CSIR-CRRI, charing the session 3



Mr Shahrokh Bagli of Strata making his presentation



Mr Vibhu Kapila of Theme Engineering making his presentation



Ms Atasi Das of GR Infra making her presentation



Q&A session



Ms Ridhima Solanki of WWF making her presentation



Discussion with Hon'ble Minister



Discussion with Hon'ble Minister









Mr Manoj Shukla of CRRI making his presentation



Dr Jagdish Shahu of IIT Delhi making his presentation



Dr Kunwar Singh of CRRI making his presentation



Chairperson Mr Dhanraj Tawade of NHAI and speakers for session 6: Quality of construction – case studies



Mr Sudip Chaudhary of MoRTH making his presentation



Mr JVL Narayana, Vice President CEAI welcoming the session chair Mr PVVSS Ravi Prasad, DG(RD) SS and other speakers



Mr R C Jain of NHBF making his presentation



Vote of thanks by Mr Navneet Sharma, Secretary CEAI



#### **CEAI NATIONAL AWARD 2023**

CEAI National Awards for Excellence in Engineering Consultancy Services were distributed during the inaugural session of the Seminar on "Quality of DPR and Construction of Highway Projects" on 9<sup>th</sup> January 2024 at Hotel Le-Meridien, New Delhi.

The awards were conferred on the following individuals and organisations:

#### **INDIVIDUALS** A





## **CATEGORY A: PROJECT ENGINEERING** SURENDRA KUMAR GUPTA

Project: Engineering services for a cement grinding unit and building of a river water canal inside the cement plant area, off a river, and installation of a mechanised system for loading of cement bags into the barges.

#### CATEGORY B: ENGINEERING INNOVATION ii) ASHISH RAKHEJA

Project: AEON Corporate Office, Noida

Mr Dushyant Rana received the award on behalf of

Mr. Ashish Rakheja



iii)



## **CATEGORY B: ENGINEERING INNOVATION -CERTIFICATE OF MERIT**

#### CHANDRACHUDHA BHATTACHARYYA

Project: Civil and Structural Health Audit of the Four Towers and other associated Structures of Diamond City South



### **B** ORGANISATIONS

i)



CATEGORY A: GROUP 1 UPTO RS. 50 CRORE: PROJECT ENGINEERING

#### **SPECTRUM Techno Consultants Pvt. Ltd.**

Project: Design of Multi-span Cable Stayed Bridge at Ambhora, near Nagpur, Maharashtra

ii) | CATEGORY A: GROUP 2 ABOVE RS 50 CRORE: PROJECT ENGINEERING

#### **SMEC (India) Pvt Ltd**

Project: Detailed Design & Engineering Consultancy Services pertaining to Kameng Hydro Electric project (4x150 MW) Arunachal Pradesh



## iii | CATEGORY B: GROUP 1 UPTO RS 50 CRORE: ENGINEERING INNOVATION

)



## **B&S Engineering Consultants Pvt Ltd**

Project: Consultancy Services for 4 Laning of NH-37A from Km. 0.00 (Kaliabor Tiniali Road Junction) to Km. 17.300 (Dolabari Road Junction) including Construction of new Brahamputra Bridge on the EPC basis in the State of Assam Under Phase-A of SARDP-NE

#### iv) | CATEGORY B: GROUP 2 ABOVE RS 50 CRORE: ENGINEERING INNOVATION



#### **RITES LTD**

Project: Project Management Consultancy for Bogibeel Bridge



## **TATA Consulting Engineers Ltd**

Project: Riverfront Development of Tunga in Shivamogga City



#### LIFETIME ACHIEVEMENT AWARD 2023

The Awards Committee decided to confer the Lifetime Achievement Award to the following considering their extensive contribution towards the upliftment of the consultancy profession.

- 1. MR. SUHIR DHAWAN, PAST PRESIDENT CEAI
- 2. DR. SAMARJIT CHATTERJEE, PAST PRESIDENT CEAI



Mr. Sudhir Dhawan receiving the Lifetime Achievement award





Dr Ajay Pradhan receiving the Award on behalf of Dr. Samarjit Chatterjee

## Workshop on "AI, VR & AR for Engineering Projects"

CEAI Academy and CEAI-Western Region Centre in their efforts dedicated to keeping professionals up-to-date and helping them incorporate new techniques, methods, and technologies into their work, organised a workshop on the three game-changing technologies AI (Artificial Intelligence) and the immersive wonders of VR (Virtual Reality) and AR (Augmented Reality) which are revolutionising the lifestyle, especially of those dealing with Engineering Projects.

It was different from the usual workshops since the participants were provided opportunities to also experience the technologies themselves by donning VR/ AR headset and experimenting with the AI system.

Dr. Harshavardhan Subbarao, Member Governing Council CEAI and Chairman, CEAI-Western Region Centre, welcomed everyone, gave a brief about CEAI and then dealt at length on the current hot development in technology – AI and the immersive technologies VR & AR; how there are daily reports of new developments and as to how they are set to change not only how one works. He added that AI in particular would transform everyone's lives. He also cautioned on the need for its governance to minimise misuse.

Mr. Alok Bhowmick, Chairperson CEAI Academy elaborated on the CEAI Academy and that the workshop of this type would be replicated in other regions also.

Mr. P R Shahu, Head – Digital and CIO, TATA Consulting Engineers Limited gave a good exposition on the theme of the workshop, explaining each one and how they can be and are being



used by consulting engineers. He highlighted the phenomenal practical difference they have made in the projects.

Mr. Suhas Bhagwat, CEAI-WRC Committee Member lucidly covered VR and AR and their use in the various stages of engineering projects.

Mr. Amit Shrivastava, Director Solution Engineering, Bentley Systems traced the development of computer graphics which has resulted in the current use of Digital Twins for Engineering Projects and enhanced through use of ML, AR and VR.

Mr. Ashish Mehta, Co-Founder, KGraph AI Solutions Pvt. Ltd. (BI42) traced the development of AI and how it has, along with VR & AR, become a game changer. He stressed that AI is very useful for consulting engineers.

In the practical sessions the participants donned the headset, provided courtesy Bentley and experienced VR/AR for themselves. For AI the proof of the pudding was in seeking answers to queries raised by participants which were provided by the AI package developed by bi42.

In their feedback the participants wrote that the workshop was very useful to them and that what they learnt and experienced would help their organisation.

Mr. Jeffrey Nambiar expressed CEAI's gratitude to Bentley who was a Sponsor and to others who supported the event.



















## FORTHCOMING EVENTS

## SEMINAR ON "QUALITY OF DESIGN AND CONSTRUCTION FOR SUSTAINABLE INFRASTRUCTURE"

India aspires to be a global engineering hub with a quantum jump in its export of engineering goods and services. That calls for a high degree of excellence in the quality of its engineering projects. With India's achievements and stupendous success of its Space missions, there has been a growing clamour for the engineering fraternity to achieve similar levels of excellence in project engineering in all sectors to meet prescribed standards and client expectations.

Various challenges that have arisen in recent years have resulted in increased stipulation for proficiency at every stage of engineering projects, to examine and overcome various impediments, and address them by interacting with policymakers, executing agencies, experts in design and procurement, construction management and contractors, so that the built project meets the specified requirements and functions for its design service life albeit with regular and proper maintenance – with emphasis on the obligations of an engineer vis-à-vis regulations, codes and standards, contractual commitments and the standard of care of an engineer.

In response to the above clarion call, the CEAI is organising a seminar on "Quality of Design and Construction for Sustainable Infrastructure" on 18<sup>th</sup> &19<sup>th</sup> April 2024 at Le Meridien, New Delhi.

The Seminar thus aims to showcase best practices and solutions adopted to meet the highest standards of Quality along with Sustainable Development goals.

Be Aware and keep Abreast of the 5 W's and 1 H Why? What? Who? When? Where? & How? For Sustainable Development



#### FROM THE DIRECTOR'S DESK

During the month of January 2024, the Committees that met to conduct their business were:

- Governing Council
- Ethics & Quality Committee
- Membership Committee
- Finance Committee
- Seminar Committees

CEAI National awards were distributed during the inaugural session of the Seminar on Quality of DPR and Construction of Highway Projects" on 9<sup>th</sup> January 2024 at Hotel Le-Meridien, New Delhi.

#### **MEMBER NEWS**

## **IEI Industry Excellence Award**

Holtec Consulting Pvt. Ltd. has received the IEI Industry Excellence (Platinum) Award 2023 in the category, Engineering Services and Consultancy (for Organisations having turnover of Rs. 50 Cr and above but below Rs 200 Cr.).

The award was 27<sup>th</sup>presented on December 2023 by Shri Rajendra Shukla, Hon. Dy Chief Minister of Madhya Pradesh at the 38<sup>th</sup> Indian Engineering Congress at Jabalpur, Madhya Pradesh.



#### **IEI AND CII AWARDS**

Tata Consulting Engineers Ltd received Awards from the Confederation of Indian Industry (CII) and the Institution of Engineers (India) {IEI}

- 1. CII Industrial Innovation Awards 2023 as one of Top 50 Innovative Companies
- 2. CII Industrial Innovation Awards 2023 as the TOP Innovative Company Category: Services (Large)
- 3. IEI Industry Excellence Award 2023: Platinum in Engineering Services and Consultancy















#### **VIEWPOINT**

The theme for the March 2024 issue of CEAI's quarterly magazine "ViewPoint" is "Consultancy for Start-Up and MSME".

There are a large number of consulting engineering organisations who are in the MSME category and added to those are the small Start-Up units comprising a few individuals from various disciplines of engineering. Many are doing creditable work which oft go unnoticed; they include those in niche areas and/ or high-end engineering. Other developing countries also need them.

Professionals are invited to share case studies of their achievements, how they addressed the challenges faced, practical issues experienced and the solutions to those, etc. in the various disciplines of engineering. Photographs, charts, diagrams, drawings, etc. would benefit readers for a better appreciation of the issues encountered and the manner in which they were addressed.

The theme for the issues for the year 2024 are:

1	March 2024 – Consultancy for Start-Up and MSME
2	June 2024 – Affordable Housing



3	September 2024 – Energy Transition
4	December 2024 – Recycling & Reuse of Building Materials in Construction Industry

The articles for an issue need to reach CEAI at least 3 weeks prior to the end of the month of the ViewPoint issue. Articles need to be in Times New Roman 12 with single line spacing with before and after 6 pt and normal margin, on A4 size. A recent clear and bright passport size photograph of the author(s) is to be sent along with the article. For details of formatting please refer to "Format for Articles for CEAI Viewpoint" on CEAI's website, under 'Publications'.

#### **Advertisement in ViewPoint**

ViewPoint is circulated to all CEAI Members, FIDIC, Ministries of the Government of India, Public and private Sector Undertakings, Construction Firms, Contractors, Consultants, Foreign Missions and Funding Institutions in India and other organisations related to or dealing with the engineering profession. Thus, all stakeholders partnering development and progress are its readers.

## **Catch the Customers Eye**

Get Wide Exposure





Support from CEAI members and stakeholders are sought for increasing the number of advertisements so that ViewPoint gains in its stature as a unique Technical Publication for the fraternity and the public at large to spread information about how Consulting Engineers are helping society for improving the quality of life and doing so sustainably. The rates for advertisements in *VIEWPOINT* with effect from 1<sup>st</sup> January 2023 are given below:

Item	Rate Per issue*	Discounted rate at	Discounted rate at
	(Rs)	10% for 2	20% for 4
		consecutive	consecutive
		issues* (Rs)	issues* (Rs)
Back Cover	25,000.00	45,000.00	80,000.00
Inside Front Cover**	18,000.00	32,400.00	57,600.00
Inside Back Cover**	18,000.00	32,400.00	57,600.00
Full Page (Colour)	12,000.00	21,600.00	38,400.00



Full Page (Colour), if a specific page position is required.	14,000.00	25,200.00	44,800.00
Full Page (B&W) (such advertisements will be taken up for printing only when there are 4 or multiple of 4 advertisements for an issue)	8,000.00	14,400.00	25,600.00

Notes: \*GST @ 5% or as prescribed will be added to the above rates.

## FIDIC PUBLICATIONS

Hard copies of some of the FIDIC Publications are available with CEAI Secretariat.

A publication that may not be readily available could be obtained from FIDIC in about three weeks.

Please contact CEAI Secretariat for availability and price.

1	FIDIC Contracts Guide (2 <sup>nd</sup> Ed. 2022)
2	FIDIC Contracts Guide (1st Ed 2000)
3	EPC Turnkey Contract 2 <sup>nd</sup> Ed 2017 Silver Book Reprinted 2022 with amendments
4	Construction Contract 2 <sup>nd</sup> Ed 2017 Red Book, Reprinted 2022 with amendments
5	Plant & Design Build Contract 2 <sup>nd</sup> Ed 2017 Yellow Book, Reprinted 2022 with amendments
6	The Short Form of Contract (2 <sup>nd</sup> Edition, 2021).
7	The Short Form of Contract (1st Edition, 1999).
8	Conditions of Contract for EPC Turnkey Projects (First Edition, 1999).
9	EPC/Turnkey Contract 2 <sup>nd</sup> Ed (2017 Silver Book)
10	Conditions of Contract for Construction (First Ed. 1999).
11	Construction (1999 Edition) Subcontract 1st Ed (2011)
12	Construction Contract 2 <sup>nd</sup> Ed (2017 Red Book).
13	Conditions of Contract for Plant & Design-Build (First Ed, 1999).
14	Plant and design-build contract 2 <sup>nd</sup> Ed (2017 Yellow book)
15	SUBCONTRACT for Plant and design (yellow book 1999) 1st Ed (2019)

<sup>\*\*</sup>Inside Front and back covers booked till June 2024



16	Dredgers Contract 2 <sup>nd</sup> Ed (2016 Blue-Green Book).
17	Client/Consultant Model Services Agreement 5 <sup>th</sup> Ed (2017 White Book)
18	Sub-Consultancy Agreement 2 <sup>nd</sup> ED 2017
19	Model Joint Venture (Consortium) Agreement 2 <sup>nd</sup> Ed 2017
20	GUIDE to Client/Consultant Model Services Agreement (White Book) 2 <sup>nd</sup> Ed 2001
21	Construction (1999 Red Book) Sub Contract 1st Ed 2011
22	Conditions of Contract for Design, Build and Operate Projects (1st Ed, 2008) GOLD BOOK
23	GUIDE to Conditions of Contract for Design, Build and Operate Projects (2008 GOLD BOOK) 1st Ed 2011
24	Conditions of Contract for Construction - MDB (Multilateral Development Bank Harmonised Ed. Version 3: June 2010)
25	Conditions of Contract for Works of Civil Engineering Construction (4th Ed. 1987 Reprinted 2011,
26	Selection of Consultant 3 <sup>rd</sup> Ed (2019)
27	FIDIC Guidelines for Selection of Contractors 1st Ed 2017
28	Conditions of Contract for Underground works (2019 Emerald Book)

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#### CONSULTING ENGINEERS ASSOCIATION OF INDIA

#### WE OFFER

## FIDIC TRAINING COURSES

• Module I : Practical Use of FIDIC Conditions of Contract • Module II : Management of Claims and Disputes Resolution

• Module IV: Contract Management and Administration

The investment in infrastructure is growing and would continue to grow at an accelerated rate in the near and distant future across the Globe and especially in developing economy like India. The multilateral financial institutions are pouring in funds and want to be a part of the India growth story. These MDBs invariably use the FIDIC Conditions of Contract which are acclaimed as the Gold Standard of Conditions of Contract Globally.

The FIDIC Conditions of Contract are being used the world over where multi-lateral development provide the funding. And in large complex Government projects.

With a number of large and complex projects BOTH on-going and planned in the country, this training course will bring the participant the necessary detailed knowledge and insights as to the claim management and dispute resolution provisions under the FIDIC Conditions of Contract.

The comprehensive program on FIDIC Contracts led by accredited trainers

It covers the identification of project risks, their allocation, and the various causes of claim which can emerge over a construction contract and the way FIDIC addresses those. It details the way to handle claims preparation, submission, assessment, determination under FIDIC Contracts, and how disputes are prevented or otherwise resolved.

#### Certificate

After completion of the training a Certificate will be distributed to the participants.

Contact for further query

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