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BUILT ENVIRONMENT

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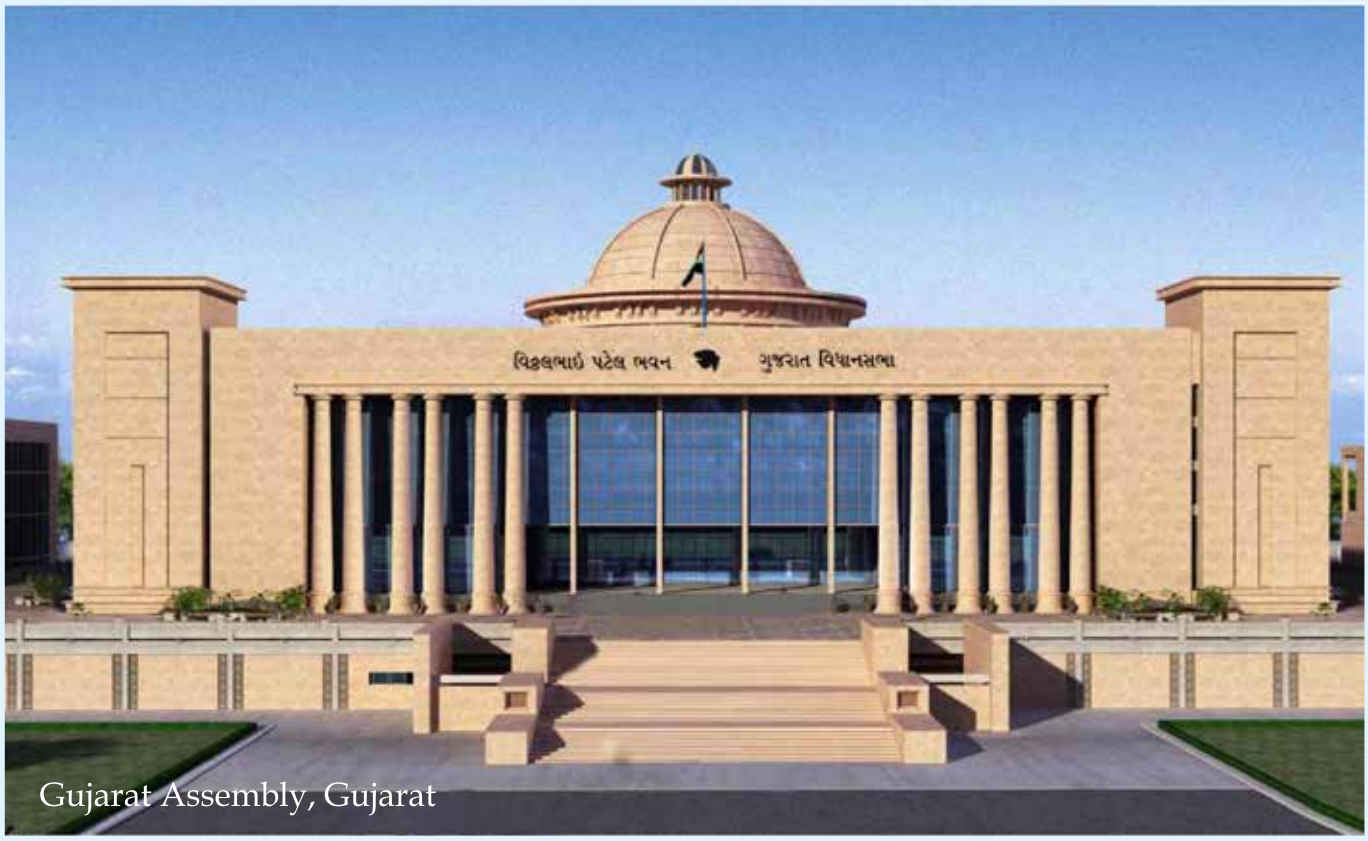

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NATIONAL NEWS

From President's Desk

Built Environment continues to face the challenges of climate change, water scarcity and sustainable development. Water plays a crucial role in the built environment, supporting various aspects of urban and infrastructure development such as Domestic Use, Industrial Processes, Landscaping & Irrigation, Fire fighting, Cooling Systems and Waste Management.

This is high time that unstinted attention is given to conserving and managing of our precious water resource. Series of strategical interventions are being made in this direction by advocating efficient use, water recycling, watershed management and sustainable design.

To preserve potable water, rainwater harvesting emerges as a vital solution. Rainwater harvesting is a simple yet effective way to recharge groundwater, reduce stormwater wastage and provide a sustainable source of water for various uses. By adopting rainwater harvesting system, we can mitigate the impact of droughts and promote water security.

Various States in the country have been promoting, adoption of Rain Water Harvesting scheme, still we have a long way to go.

IBC has recognised the importance of Rain Water Harvesting and we are in the process of bringing out User friendly handbook on 'Rain Water Harvesting' sharing the various rainwater harvesting systems, technologies and best practices compiled in easy to understand terminology.

IBC not only gives specific emphasis on disseminating information & capacity building related to technological developments, innovations, sustainable development strategies to the various professionals in Built Environment but is also conscious to contribute for the betterment of end-user of Built Environment.

Let us work together to promote sustainable water management practices and ensure a water-secure future for generations to come.

Conserve Water, Save Life.

(Er. C. Debnath)
President
Indian Buildings Congress (IBC)

From Editor-in-Chief Desk

Delhi, the capital of India, faces a severe drainage problem that has become a perennial issue, especially during the monsoon season. Major factors such as inadequate drainage system which is outdated& insufficient, coupled with rapid urbanization and poor waste management, have led to water logging, flooding, and health hazards.

The city's drainage system, designed decades ago, is struggling to cope with the ever increasing population, vehicular traffic, and construction activities. The lack of proper maintenance and regular cleaning of drains has exacerbated the problem.

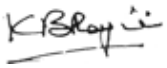
The perennial issue of drainage problem has multifaceted impact such as Water logging & Flooding, Health Hazards and ever emerging Environmental concerns. The city's streets and roads are often inundated with water, causing traffic congestion, accidents, and damage to property.

Standing water becomes a breeding ground for mosquitoes and as such increasing the risk of waterborne diseases like malaria, dengue, and chikungunya. Overflowing drains & sewage system pose a significant threat to the environment and public health and contaminate the city's water bodies.

Ever increasing drainage problem in Delhi requires a multi-pronged approach such as Infrastructure Upgradation, Regular Maintenance, Waste Management and above all a sustained Public Awareness campaign.

Delhi's drainage problem requires immediate attention and collective action from the government, citizens, and other stakeholders. By working together, we can create a more liveable and sustainable city. It's time for all Stakeholders to take concrete steps to address this issue and ensure that Delhi's drainage system is equipped to handle the challenges of the rapidly emerging Viksit Bharat.

We need to create a healthier and more sustainable environment for citizens of Delhi by an efficient drainage system.



(K.B. Rajoria)
Fmr. E-in-C, Delhi, PWD &
Past President, IBC

India's First Glass Sea Bridge at Kanniyakumari, Tamil Nadu

K.P. Sathyamurthy
Former E-in-C, Tamil Nadu, PWD &
Chairman, IBC Tamil Nadu State Chapter, Chennai

Abstract

Government of Tamil Nadu had accorded Administrative Sanction for an amount of Rs.37.00 Crores for Construction of Marine Bridge connecting Vivekananda rock memorial and Ayyan Thiruvalluvar statue located at Kanyakumari. In order to have a beautiful sea view, glass panels are placed at the middle of the deck slab to spectate the sea & wave below. The work was commenced on 24.05.2023 and completed on 31-12-2024.

Although not directly involved in this project's execution, this technical article has been compiled by Er. K.P. Sathyamurthy, Chairman, Indian Buildings Congress – Tamil Nadu State Chapter, Chennai, and Former Engineer-in-Chief, Tamil Nadu PWD. He has brought together the various technical inputs from the contributing engineers into a coherent and structured format.

Introduction

A Pedestrian Marine steel network Arch Bridge has been constructed connecting the island areas. The bridge is supported on concrete piers. The deck system consists of Pre Tensioned Slabs (PTS) resting on Stainless Steel - I section laid at regular intervals. A longitudinal girder, spanning between piers to support these tie beams was designed using SS Plate sections and stiffened using stiffeners. The Longitudinal girder is suspended to the Arch through macalloy tension rods. Ties and cross braces are provided along the arch section for lateral stiffness of the marine bridge. All structural steel plates are stainless steel of grade IRS 450. Necessary Coastal Regulation Zone Clearance was obtained in May 2023.

The technical details of the bridge are detailed below

Span	77.00m
Width	10.00m
Height of bottom of bridge from sea	7.00m
Type of steel used:	SS 550 grade
Type of steel used for Network Arch	IRS
Grading Concrete	M60
Dimension of Glass walking	60.00m X 2.40 m
Thickness of Glass	53.00 mm

The bridge has been designed for a live load of 750kg/sqm in which approximately 600 people can walk without any disturbance with free movement. Seismic zone of IV and velocity of 50m/sec. The Network Arch has 101 individual members as detailed below:

Long Beam	20 Nos (5m to 7m)
Cross Beam	14 Nos (9.50 m)
Arch members	26 Nos (4.5 m to 7.00 m)
High braces	13 Nos (9.50 m)
Individual unit beam	28 Nos (4.0 m to 5.0 m)
Total	101 members

The above members were tied with macalloy rods of 64 Nos. Pretensioned slab 82 Nos of size 5.83 m X 1.2m X 0.15. Solid slab 8 Nos and 2 Nos near glass panel.

Foundation details

Dowel rods 150 Nos 1.20 m,

Footing 7.5 m x5.0m x1.2m

Pier 3.0m x2.50m x 0.577m

Cap of 11.45m x2.50m x1.0m +1.25

Dowel rods 150 Nos 1.20 m depth

Hilty Chemical 750 ml

Tentative total weight of the bridge

Sl no	Description	Weight(Ton)
1	Stainless steel plate(101 ELEMENTS)	201.09
2	Macalloy	8
3	Glass Frame	13.25
4	PT slab	233.49
5	Topping	155.66
6	Glass	19.55
7	Flooring	74.72
8	Hand Rail	2.31
9	Other Ornamental	4
		712.07

Model creation

The entire arch bridge was modelled in Structural Software as per the proposed geometry and loadings applied as per load cases and combinations specified in IRC: 6 –2014. Different material Properties and Strength of parameters are assigned for the various sections as per requirements. The longitudinal girder, arch section and tie beams are designed as Steel sections. The analysis of the bridge was done in Structural Software to arrive at the maximum bending moment, shear force and concrete stresse in deck slab, arch section and beams.

As per IRC 112:2011, Cover for Pretensioned members are taken as 45mm and crack width for Reinforced and Prestressed members under very severe and extreme condition.

Customization in design Loads:

Code Reference	Recommended Value	Adopted Value
Cl. 206.1, IRC:6-2016 Live Load	400kg/m2 to 500kg/m2	750 kg/m2
IS1893(Part I)-2016	Zone III	Zone IV
IS875(Part III)-2015	39 m/s	47 m/s

Material:

Element	As Per Design
Girder Length	77m
Anchors	Stainless steel rebars- Grade 550
Reinforcements	Stainless Steel rebars- Grade 550
Plates for connection	Stainless Steel plate- Grade IRS450

The following updates have been carried out in the design of steel network bridge according to site conditions -

Owing to the Site conditions, modifications have been made in the Alignment of the bridge and hence the length of Girder has been modified to 77m from 72m. Due to the prevalent environmental conditions, stainless steel anchors have been provided and all structural steel plates of stainless-steel grade IRS 450 has been provided. Live load values are adopted more than code recommendations. Similarly followed for Earthquake and Wind loads, as tabulated:

Model with load cases

Seismic Load	Wind Load
Basic Wind Speed 47m/sec	Zone IV
Gust Factor 2	Zone Factor 0.24
Drag Coefficient 1.1	Importance Factor 1.2

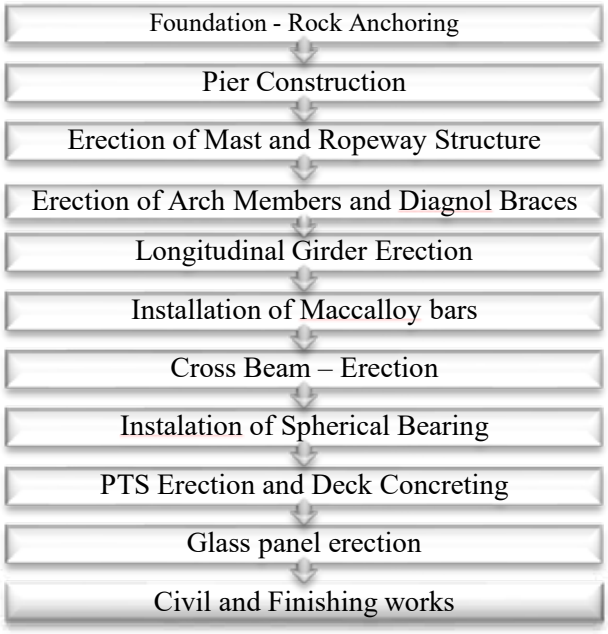
Check for Members

Deflection of Members: As per IRC 112:2011; 12.4.1, deflection limit under live loads for pedestrian bridge is span / 1000. Deflection for live load as per STAAD Pro analysis is 61.43 mm. Hence allowable deflection is 76.9 mm. Hence Deflection is within limit.

Mock assembly of network Arch at fabrication unit

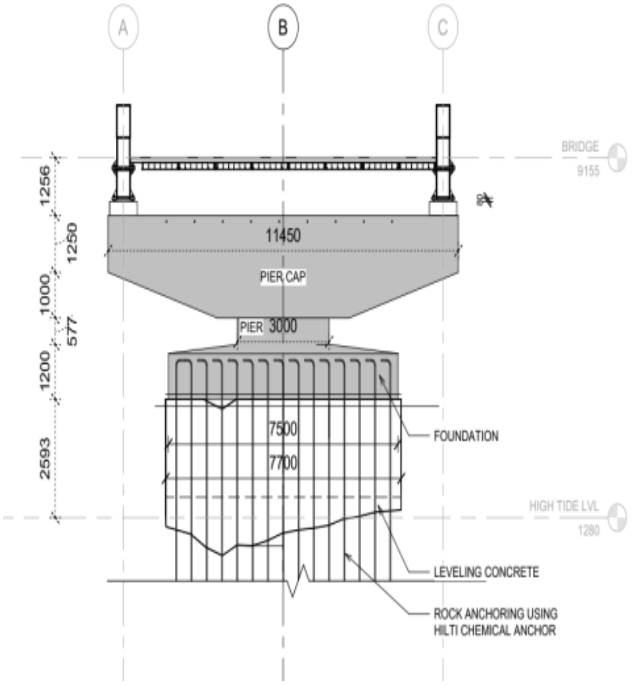
RDSO (Research Designs and Standards Organization) approved fabrication unit M/s Metal Scope (India) Pvt. Ltd., Pondicherry. Mock assembly of Network arch was cleared by Authority Engineer at M/s Metal Scope (India) Pvt. Ltd., Pondicherry. The assembled steel units were dismantled, painted and transported to work site.

Construction methodology



Pier and pier cap construction

Pier section of size 2500x3000mm has been constructed to support the network arch bridge followed by the Pier cap construction. Stainless Steel rebars of diameter 32mm, spaced at 500mm were anchored for a depth of 1200mm into the existing rock using epoxy chemical anchor (Hilti HIT-RE 500 V4).



Foundation Marking

Injection of epoxy chemicals

Pull out test for the anchored Rod 372 KN achieved against 350 KN (Design Load)

Arrangement of rods anchored foundation concrete work

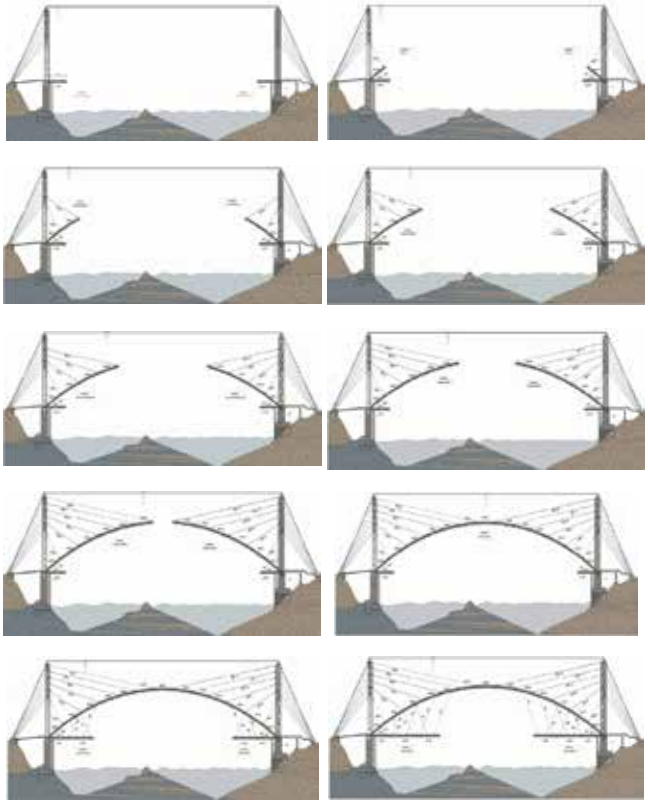
Pier concrete completion and cap concrete completion

Mast and erection for Arch sections

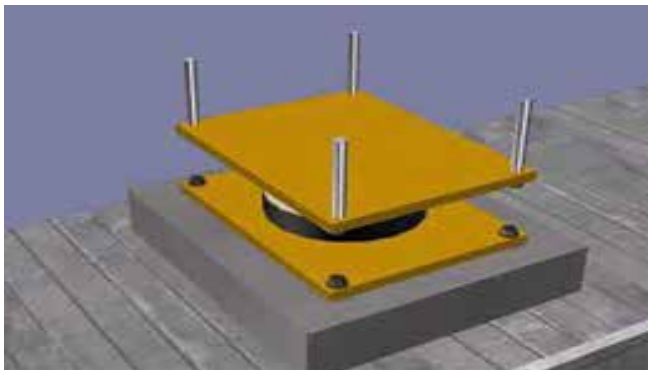
In the viewpoint of facilitating the arch erection, installation of masts was required at both the ends. Hence two number of masts with one on each side has been provided in order to support the launching system for the erection of arch sections. The masts have been supported on the Pier cap with suitable anchoring systems. The geometry and the structural steel sections of the mast are designed separately for the forces to support the rope way system and the launching system with additional back supports provided as per requirements. The complete arch section of the marine bridge is composed of 13 individual sections for each arch. Erection was done in parts with both the arches erected consecutively. Horizontal bracing would be done to make sure the sections act as a single unit.

Mast erection

Erection sequence

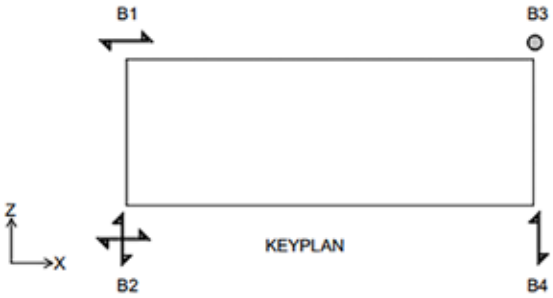


Spherical bearings installation



Mast erection work

Key Plan



The edge conditions of the bridge

The edge conditions of the bridge, refer to how the spherical bearings at each corner are designed to handle movement and forces. These conditions are critical in accommodating thermal expansion, wind loads, earthquake motions, and dead/live loads without overstressing the structure. Here's an explanation for actual behavior:

There are 4 spherical bearings, each with different constraints: Table 1

1. Bearing A – Fixed in both directions (longitudinal & transverse).
2. Bearing B – Fixed in longitudinal, free in transverse.
3. Bearing C – Fixed in transverse, free in longitudinal.
4. Bearing D – Free in both directions (floating bearing).

Bearing	Constraint	Function in Behavior
A – Fixed–Fixed	No movement in either direction (acts as the main anchor).	It resists all horizontal forces (e.g., thermal, wind, seismic) in both longitudinal and transverse directions. It is the primary restraint point, controlling the overall stability.
B – Fixed in Longitudinal / Free in Transverse	Movement allowed sideways (transverse), but fixed along the bridge length.	Accommodates transverse movement due to temperature or lateral loads while contributing to longitudinal restraint.
C – Fixed in Transverse / Free in Longitudinal	Movement allowed along the bridge length (longitudinal), but fixed side-to-side.	Accommodates longitudinal expansion/ contraction due to thermal effects while providing transverse restraint.
D – Free–Free	Allows movement in both directions.	This bearing is to absorb all expansions and contractions, acting like a floating point. It provides no horizontal restraint, avoiding stress accumulation.

This arrangement of bearings ensures the bridge can expand and contract freely due to temperature variations or dynamic loads without causing undue stress or distortion. It provides controlled restraint (bearing A), directional flexibility (bearings B & C), and free movement (bearing D).It's a standard engineering strategy in long-span or flexible bridges to prevent cracks or bearing failure.

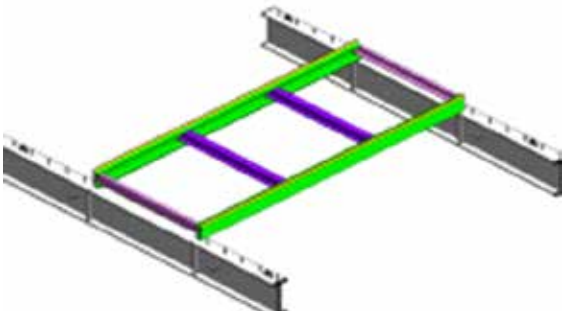
The spherical bearing is made of stainless steel, SS 304 grade. The sliding surface is provided using Ultra High Molecular Weight Polyethylene (UHMWPE) as per IRC 83, which is significantly superior to PTFE in terms of performance. UHMWPE offers excellent frictional properties, enhanced load-bearing capacity, and the ability to accommodate high-velocity displacements, making it suitable for long-term use. It is designed to provide a service life of approximately 50 years. The bearing was designed to accommodate a maximum translation of 50 mm in the longitudinal direction and 20 mm in the transverse direction.

PT slab erection and deck concreting

Upon the completion of cross beam erection, PTS of 150 mm thick have been provided forming the deck of the network arch bridge. Concrete of thickness 100 mm have been provided as topping over the PTS. Channel sections are provided along the top layer concrete to house the glass sections at the middle of the Bridge deck.

Topping concrete over pt slab

Glass frame erection



Glass fixing

Conclusion

The successful planning, design, and construction of the stainless-steel network arch bridge with a glass deck at Kanniyakumari marks a significant milestone in India's civil engineering landscape. As the first of its kind over the sea, this bridge not only connects two monumental landmarks—Vivekananda Rock Memorial and the Thiruvalluvar Statue—but also enhances the visitor experience by providing a panoramic view of the ocean through its central glass panels. Executed in a complex marine environment, the project demanded precision, innovation, and adaptation to site-specific challenges. The use of high-grade stainless steel, advanced structural design, and meticulous construction practices ensured durability, safety, and aesthetic appeal. This engineering marvel stands as a testament to the technical excellence, dedication, and collaborative spirit of the Highways Department and associated experts. It sets a new benchmark for marine infrastructure in India and contributes meaningfully to tourism, culture, and public accessibility.

Birsa Munda International Hockey Stadium "An Engineering Marvel"

Aswini Kumar Biswal
Engineer-in-Chief, Designs (Retd.), Works Department,
Chief General Manager (Civil), IDCO

Abstract

Built to host the 2023 Men's Hockey World Cup, it was completed in just 15 months and inaugurated on January 5, 2023. With a seating capacity of 20,011 and space for an additional 5,000 spectators, it holds the Guinness World Record as the largest fully seated hockey arena. Designed to global standards, it features cutting-edge architecture, advanced drainage, and high-tech broadcasting infrastructure.

Introduction

It has huge landscape and well-designed internal roads with 5 nos. entry gates for public over 46.00 acres of land surrounded by hills in both sides and close to the Biju Patnaik University of Technology campus at Rourkela.

Ground view of Birsa Munda International Hockey Stadium

Key features

1. The shape of the stadium and the seating galleries made oval with rectangular field of play whose design has been made differently and gave beautiful Arial view.
2. External facade with integration of ACP, perforated aluminium mesh and curved decorative fin made the gorgeous look.
3. Use of special type of concreting methods like stain concrete, IPS flooring, micro concreting etc. were used for pedestrian hallways, Concourse area below the galleries and vehicular movement area.
4. Visitor's movement, emergency evacuation plan, uninterrupted power supply facility & the light show arrangements for the matches in the evening was a total integration of our event planning which was conceptualised in sufficient advance of the execution.
5. The special planning for creation of camera platform, setting of the broadcasting camera, the recording and broadcasting arrangements are of very good quality of international event management.
6. The underground drainage plan for storm water and sewerage disposal system was integrated

with the existing drainage system of the Rourkela Municipality which is considered as the no.1 smart city among the 1st phase 25 smart cities.

Climate Analysis

A wind rose analysis for Rourkela, typically involves examining historical wind data to understand the prevailing wind patterns and directions throughout the year. The graphical representations of Wind flow, that display the frequency and strength of winds blowing from different directions over a specific period were analysed.

Seismic Consideration

- Odisha falls under the Zone II of the Seismic Zones of India which denotes low chances of seismic activity.

Design Development

Master plan includes Main hockey Stadium, Recovery Building and other ancillary structures. The complex can be accessed through six number of gates which cater to different user groups during event. Main Stadium and Recovery Building both haveFIH Category 1 Hockey Turf.

Stadium have following Facilities

❖ **FOP**

1. Players & Officials' Areas - Category 1 Hockey Field
2. Practice Pitch - Category 2 Hockey Field

❖ **West Stand (Lower Ground Floor)** - Players' Entrance Lobby, Players' Changing Rooms, Doping Control Room, First Aid Room, Technical Official's Lounge, Umpire Change room, Video Umpire's Room, Cheerleaders' Room

❖ **West Stand (Upper Ground Floor)** – Room for Dignitaries, Media Entrance Lobby, Press Conference Room, Broadcast Control Room, Media Working Area, Media Tribune, Radio Commentator's Room, TV Commentator's Room, Camera Platform. The sitting arrangement in the Gallery for 3000 viewers available in this stand.

❖ North Stand, South Stand and East Stand having sitting facility for 17,000+ viewers with all other facilities like wash room, rest room, seek room, room for the volunteers etc

Façade Design

The stadium's exterior is designed as a glossy, curved metal surface with vertical solid strips and transparent panels, creating the impression of a global stadium. The material of white, green coloured curved surfaces is ACP sheets and semi transparent panels is Expanded aluminium mesh.

❖ The Façade of the Stadium is conceived as a Shimmering Screen of Curved Metallic Surface with a Series of Vertical Solid Bands and Transparent Screens to Evoke the Image of a Global Stadium.

❖ The Central Portion of the Façade on all sides has been further articulated to create a Canvas to Project the Art, Culture and the Natural Beauty of Odisha.

❖ The Curved Surfaces of the Facade reflects different qualities of Light and Sparkle with different Hues. The Sun, an Integral Part of the Culture of the State, Animates and Transforms the appearance of the Stadium throughout the day, Creating an Illusion of Constant Motion.

Area Statement

DESCRIPTION	SQ.MT
LOWER GROUND FLOOR	4629.00
GROUND FLOOR	12286.00
FIRST FLOOR	7097.00
SERVCIE FLOOR	466.00
TOTAL AREA	24478.00

Field of Play Dimensions & Run-Offs

A field comprises the field of play (FOP) and perimeter run-offs. The FOP measures 91.40m by 55.00m.

Quantity of the Major Items of the Execution

1. Excavation in hard soil and rock – 277678 cum.
2. PCC – 5840 cum.
3. RCC (grade M25, M30) – 30247 cum
4. Steel Reinforcement – 2658 Mt.
5. Structural Steel Work – 3902 Mt.
6. Precast Concrete items (volume) – 1200 cum.

Financial Outlay of the Project

1. Agreement value – Rs.167.45 Crore
2. Value of completion – Rs.287.37 Crore
3. Date of Actual Commencement – 01.10.2021
4. Recorded Date of Completion – 31.12.2022

Real Time Progress

The broad outline of target against achievement of the iconic project.

- The design detailing and issue of drawings – 2(two) months, observed delay 1(one) month.
- Total foundation work : 4(four) months, observed delay 1.5 months as the stipulated commencement date was in the month June-2021, the outset of the rainy season.
- Total work of Substructures and Superstructures: 6 (six) months, observed delay nil, catch up 1 month.
- Other infrastructure components, Site Development, MEP work and Façade work: 5 (five) months, observed delay nil, catch up 2 months.
- The time allowed for all commissioning, verification of the utility services along with supply of all equipments, furnitures, lights etc.: 1 month, observed delay nil.
- Summary: Total period as per revised programme including delay is 18 months and catch up period 3 months.

Outcome of the Project

- The World's largest Hockey Stadium was completed and handed over to FIH for conducting Hockey Men's World Cup-2023 as the alternative venue in Odisha. The event was conducted successfully from 13th January-2023 to 29th January-2023 among 16 nos. of International Hockey teams.
- The State of Odisha as well as the Country has been honoured on receipt of the declaration as the World's highest capacity stadium for Hockey in the Guinness Book of World Record.

Conclusion

A structure, device, or system that is remarkable or impressive due to its innovative design, construction, or functionality, often pushed the boundaries of what's considered possible within the time schedule at a place of 400 km away from the Capital city of Odisha in a tribal district like Sundargarh.

References

1. National Building Code 2016
2. Green guide safety standards
3. FIH design & development guide
4. FIH guide for sports lighting
5. FIH facilities guide

IBC NEWS

I. IBC HQ

Mid Term Session and National Seminar on "Innovations in Built Environment" April 11-13, 2025

Inaugural Session

Dignitaries on Dais

The Mid Term Session & National Seminar on "Innovations in Built Environment" was jointly organised by Telangana State R&B Department and Indian Buildings Congress (IBC) Telangana State Chapter on 11th - 13th April 2025 at National Academy of Construction (NAC), Cyberabad-Hyderabad, Telangana. The delegates and the Chief Guest were given grand welcome by beating of drums and tribal folk dance performance. The Inaugural Session was inaugurated by Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B who was the Chief Guest. Mrs. Harichandana Dasari IAS, Spl. Secretary Telangana, R&B was the Guest of Honour. Er. Chinmay Debnath, President, IBC; Er G. Rajeshwar Reddy, Chief Engineer (R&B) & Chief Patron, IBC Telangana Chapter; Er. O.P. Goel, Founder, IBC; Dr. P. Surya Prakash, Chairman, IBC Telangana Chapter; Er. M Satyanarayana Mendu, Hony. Secretary, IBC Telangana State Chapter. Er. V. Suresh, Fmr. CMD, HUDCO Ltd. & Past President, IBC; Shri V.R. Bansal, Hony. Secy., IBC and Er. I.S. Sidhu, Executive Director, IBC were on the dais.

Folk Dance

Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B, Lighting of Ceremonia Lamp

Ganesh Vandana

The Inaugural Session commenced with lighting of Ceremonial lamp by the Chief Guest, Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B. All the dignitaries on the dais also joined the Chief Guest in lighting of Ceremonial Lamp. After Lighting of Ceremonial Lamp, Ganesh Vandana and IBC Geet was played.

Dr. P. Surya Prakash, MD, Satyavani Projects & Consultants Pvt. Ltd.; Chairman, Organising Committee & Chairman, IBC Telangana State Chapter delivering the Welcome Address

The Proceeding started with the Welcome Address by Dr. P. Surya Prakash, Managing Director, Satyavani Projects & Consultants Pvt. Ltd.; Chairman, Organising Committee & Chairman, IBC Telangana State Chapter. He welcomed the Chief Guest and Guest of Honour, President, Founder President, Hony. Secy.; all the dignitaries on the dais and all the delegates who have come from different parts of the country. He said that during the Technical Session industry expert, researchers, policymakers and stakeholders will share insights, advancements and best practices in the built environment.

This seminar will focus on sustainable development, innovative technologies and best practices in the built environment. Key discussions will include reducing emissions, promoting eco-friendly practices and enhancing energy efficiency. The seminar will also explore cutting-edge solutions, materials and techniques for enhancing building efficiency, sustainability and resilience. Renowned speakers will share their expertise, perspectives and insights on innovations in the built environment.

This seminar will provide a platform for discussing challenges, opportunities and future directions in the built environment. The insights and takeaways from the seminar will shape the future of the built environment in India.

IBC would like to extend heart felt gratitude to the Roads and Buildings Department, Govt. of Telangana and the Indian Buildings Congress, Telangana State Chapter for their support and collaboration.

Preliminary Publication, Built Environment and Souvenir being released by the Chief Guest and Guest of Honour

To mark the occasion, the Chief Guest, Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B and Guest of Honour, Mrs. Harichandana Dasari IAS, Spl. Secretary Telangana, R&B released the compendium of technical papers selected for the Seminar named as 'Preliminary Publication'; Quarterly Magazine of IBC named as 'Built Environment' and the Souvenir of the event.

Er. C. Debnath, President, IBC addressing the Gathering

Er. C. Debnath, President, IBC addressed the gathering. He mentioned that the Roads and Buildings Department, Govt. of Telangana (Institutional members of IBC) jointly with Indian Buildings Congress, Telangana State

Chapter organised Mid Term Session and National Seminar on "Innovations in Built Environment" of IBC on 11-12 April, 2025 at Hyderabad, Telangana and 108th Governing Council Meeting of IBC on April 13, 2025.

He said that the seminar will bring together engineers, architects, researchers, students and professionals related to Built Environment, to explore transformative ideas, breakthrough technologies and sustainable strategies that are redefining how we design, build and inhabit our spaces.

Indian Buildings Congress strives to bring all professionals on one platform for experience sharing, capacity building and information dissemination. IBC is a professional body connected with built environment and in the last 33 years of its existence, it has come of age and is rendering valuable service to the Country through interaction on the current issues pertaining to Built Environment. This seminar is one more in the unstinted series of Technical activities such as Seminars, Workshops, Training Programme, Technical Talk, Publication etc.

A Souvenir was published on the occasion and it is a pride to present this Souvenir as a token of appreciation and remembrance of the enriching experience shared at the Seminar on 'Innovations in Built Environment'.

As we navigate an era of rapid urbanization and environmental challenges, innovation becomes not just a choice – but a necessity. Let this souvenir remind us of the insights gained, the connections formed and our collective commitment to creating a more resilient, inclusive and intelligent built environment.

He congratulated the IBC Telangana State Chapter for organising this seminar alongwith publishing Souvenir jointly with Roads & Buildings Department, Govt. of Telangana and wish them a grand success in their venture.

Er. G. Rajeshwar Reddy, CE, R&B read the message from Er. Komatireddy Venkat Reddy, Hon'ble Minister of R&B and Cinematography, Govt. of Telangana

Er. G. Rajeshwar Reddy, Chief Engineer, R&B, Govt. of Telangana GC Member, IBC & Chief Patron, IBC Telangana State Chapter read the message of the Er. Komatireddy Venkat Reddy, Hon'ble Minister of Roads & Buildings and Cinematography, Govt. of Telangana.

The Message:-

"It gives me an immense sense of happiness and pride to know that Indian Buildings Congress is conducting National Seminar on "Innovations in Built Environment" on 11th and 12th April, 2025 at NAC, Hyderabad. On this occasion, I commended the organizers for bringing together experts, researchers and practitioners to share knowledge and ideas on shaping our built environment.

The Government of Telangana is committed to innovative and sustainable development, particularly in the Roads and Buildings sector. We aim to create infrastructure that not only supports economic growth but also minimizes environmental impact. We also welcome the cutting-edge technologies to enhance construction efficiency, reduce cost and improve quality. We encourage fostering partnerships among stakeholders to drive progress and achieve common goals.

Our state has made significant strides in developing modern infrastructure including roads, bridges and public buildings. We will continue to prioritize innovative approaches to meet the evolving needs of our citizens.

I extend my best wishes to the Indian Buildings Congress National Committee and speakers and participants for a successful seminar. May this event inspire meaningful discussions, collaborations and innovations that benefit our community and beyond."

Er. O.P. Goel, Founder President IBC addressing the Gathering

Shri O.P. Goel, Founder President, IBC while addressing He mentioned that Built Environment is a major attribute of Construction Industry. Construction

Industry has taken a great leap in the new millennium. We have entered a new phase in the era of globalization and liberalization with new techniques, new concepts, new materials & computer aided designs, highly sophisticated construction equipment and machinery, varieties of grades of cement, steel and other materials which are revolutionizing the Construction Scenario in the Country.

He said that many of these aspects will be discussed in the technical sessions of the Seminar. He extended his best wishes for the success of deliberations during the 108th Governing Council Meeting and the National Seminar.

Memento being presented to Chief Guest, Shri Vikas Raj, IAS, Spl. Chief Secretary, Telangana by Er. C. Debnath, President, IBC and Er. G. Rajeshwar Reddy, CE, R&B

Memento being presented to Guest of Honour, Mrs. Harichandana Dasari IAS, Spl. Secretary, Telangana by Dr. P. Surya Prakash, IBC Telangana State Chapter

Mrs. Harichandana Dasari IAS, Spl. Secretary Telangana, R&B, Guest of Honour addressing the Gathering

Mrs. Harichandana Dasari IAS, Spl. Secretary Telangana, R&B, Govt. of Telangana, Guest of Honour while delivering the address, she mentioned that the venue of National Academy of Construction (NAC) is a prestigious institution of its own kind which has emerged as a meritorious institute for training the persons to support the best practices in the Construction Industry.

She mentioned that the National Seminar on "Innovations in Built Environment" gives an opportunity to discuss all the aspects of the new technologies and their applications in the sphere of Habitat Construction. She said that the deliberations of this seminar will give a meaningful contribution to the construction and Building ecosystem in the country.

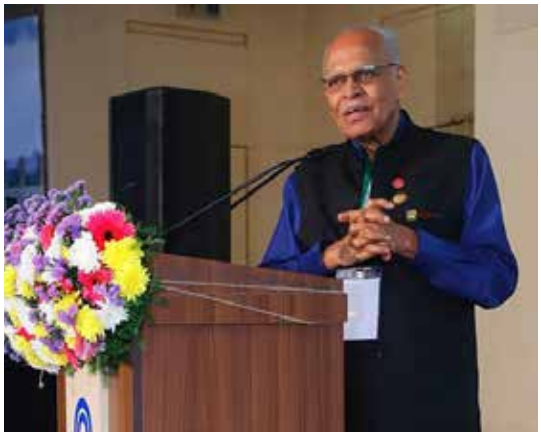
She wished that this National Seminar a fantabulous success proving the way for many more such meaningful events by Telangana Roads and Buildings Department and Indian Buildings Congress, Telangana State Chapter.

Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, addressing the Gathering

Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B, Govt. of Telangana, Chief Guest extended his warm greetings on the occasion of the National Seminar on "Innovations in Built Environment" being organised on April 11-12, 2025 at National Academy of Construction, Hyderabad.

He mentioned that this seminar would bring together thought leaders, experts, practitioners and policymakers to deliberate on transformative ideas and technologies that are reshaping the built environment. In an era where sustainability, resilience and smart infrastructure are at the forefront of development, such platforms are vital for fostering collaboration, knowledge sharing and forward-thinking solutions.

He congratulated the organizers for their efforts in bringing together such a distinguished gathering. He added that the insights and outcomes from this seminar will contribute meaningfully to the ongoing progress of our infrastructure.



Er. V. Suresh, Fmr. CMD, HUDCO Ltd. & Past President, IBC delivering Keynote Address

Er. V. Suresh, Fmr. CMD, HUDCO Ltd. & Past President, IBC, Keynote Speaker in the Inaugural Session. In his address, he elaborated the topic "Innovations in Built Environment" through slides & presentations. He talked on World Population Trends. He informed that population in developing and lesser developed countries will become 88% of total population by 2050. India's Urban population will double from 28 crores in 2001 to 60 crores in 2030. He mentioned that Soil Erosion, Landslides, Falling of Trees and Muddy Streams during rains are the result of environment changes. He suggested possible remedial measures as City Soil Mapping, Sedimentation Control Measures and Proper stabilization to avoid soil runoff.

He discussed the impact of environmental changes on Water and Air. He said that Flash Floods, Pollution of water streams by effluents & municipal waste and Low Rainwater Capture. Forest Fires, Open fires & campfires, Air pollution due to construction, Emissions from fossil fuel burning are causing great damage to the nature. He discussed and suggested ways how to protect from such damages.

He talked about benefits of Green Home, Green Built Environment, Green Railway initiatives and many more topics related to Built Environment. He said that the Mantra for the decades "Take the Resilient & Sustainable Path- The only Sure Way Forward for Making Built Environment Responsive to Climate Change."

Er. V.R. Bansal, Hony. Secy., IBC delivering the Vote of Thanks

Er. V.R. Bansal, Hony. Secy., IBC & Fmr. CE, MCD delivered the Vote of Thanks. In his address he thanked the Chief Guest, Shri Vikas Raj, IAS, Spl. Chief Secretary Telangana, R&B and Guest of Honour, Mrs. Harichandana Dasari IAS, Spl. Secretary Telangana, R&B for sparing his valuable time for inaugurating the convention despite his busy schedule.

He thanked to Er. C. Debnath, President, IBC; Er. O.P. Goel, Founder President, Er. G. Rajeshwar Reddy, Chief Engineer, (R&B) Govt. of Telangana. Er. P. Surya Prakash, Chairman IBC Telangana State Chapter, Er. Satyanarayana Mendu, Hony. Secretary, IBC Telangana State Chapter etc. He also thanked all the delegates and participants who had come from across the country to attend the Mid Term Session and Seminar and the inaugural programme was concluded with the National Anthem.

Cultural Programme

In the evening, a cultural programme was held. The audience appreciated and enjoyed the performance of the artists. The cultural programme was followed by dinner.

Technical Session I

Smart Technologies, Equipment and Digitization

Er. T. Vijay Kumar, Invitee Speaker; Er. A. R. Singh, Chairman & Er. V. Venkata Narayana Co-Chairman on the dais

The Technical Session I was held on April 12, 2025 at National Academy of Construction, Cyberabad, Hyderabad, Telangana. The session was chaired by Er. A.R. Singh, CE, PWD - Madhya Pradesh and Er. V. Venkata Narayana, SE (Rtd.) R&B Govt. of Telangana, as the Co-Chairman. Er. T. Vijay Kumar, Vice President & Head, Construction Method Planning Cell, L & T Construction, Chennai was the Invitee Speaker of Technical Session I. The Chairman, the Co-Chairman and Invitee Speaker of the Session were welcomed by presenting flower of bouquet.

Opening remarks of the Chairman

The Chairman Er. A. R. Singh in his opening remarks welcomed all the delegates. He underlined the importance of the theme of this Session - 'Smart Technologies, Equipment and Digitization' and invited the Speakers to deliver their presentations.

Paper Presented

First paper on "Electric Vehicle Charging Stations in High Rise Residential Building - Proposal for a Policy Frame Work" was presented jointly by Dr. K. Srinivas, Faculty, JNA & FAU University, Hyderabad; Shri K. R. Ramana, Allied faculty, Ashoka School of Planning and Architecture, Hyderabad & Ms. Mounika Sri, Research Scholar, Ashoka School of Planning and Architecture, Hyderabad. In their presentation, they mentioned that urbanization has reshaped the global landscape, with high-rise buildings becoming central to contemporary urban environments. The integration of electric vehicle (EV) charging stations into high-rise residential buildings will meet the growing demand for electric mobility and promote sustainability. EV infrastructure in residential settings is pivotal for reducing greenhouse gas emissions.

Second paper on "Building Tomorrow Today: Exploring the Role of Artificial Intelligence in Streamlining Construction Projects" was presented by Dr. Sameer Jain, OSD to President and Chancellor and Faculty, Business School, NICMAR, Pune. In his presentation, he described that the construction industry is one of the largest and most complex sectors in the global economy, with projects often involving multiple stakeholders, large amounts of data, and a high degree of uncertainty. Artificial intelligence (AI) has the potential to revolutionize the way construction projects are managed and executed, by providing real-time insights and automated decision-making. He said that AI has the potential to significantly improve the efficiency, safety, and sustainability of construction projects, and that its successful implementation requires a collaborative and interdisciplinary approach.

Third paper on "Strategizing BIM & Digital Adoption in India's Built Environment Sector" was presented by Dr. Amarnath C.B. In his presentation, he informed about the integration of BIM (Building Information Modeling) and digital technologies in built environment. He said that successful adoption requires a strategic and structured approach that bridges technological capabilities, organizational workflows and human factors. He discussed in detail through his presentation the use of BIM in various projects contractual requirement etc. in India. He presented the example of BIM application in works being executed in Srinagar.

At the end of Technical Session-I, Invitee Speaker Er. T Vijay Kumar, Vice President & Head, Construction Method Planning Cell, L & T Construction, Chennai was invited to give his presentation.

Er. T. Vijay Kumar, Invitee Speaker

The topic of his presentation was "Smart Technologies, Equipment & Digitization in HSR". In his presentation he described the use of Smart Technologies, Equipment & digitization in HSR. Through PPT, he explained the working of various heavy tools & machineries and through various on site pictures, he described about River Foundation, Pile Foundation, Pier Foundation, Well Sinking and Methodology used.

He also displayed the visuals of various precast component and its erection at site. He discussed about the safety measures taken at site, automation taken place, Robotic Rebar Café Manufacturing etc.

He shared the information that Mumbai-Ahmedabad High Speed Rail Project C4 Package, the largest contract amounting to Rs 24,000 cr. has been awarded to L&T in the Country.

His presentation was well appreciated by the attendees.

Summing Up

Before concluding the Session, the Chairman invited questions related to paper presented by the Authors & Invitee Speaker. There were many questions raised by the audience and was replied by the respective speaker.

Thereafter, Invitee Speaker, the Chairman, Co-Chairman and all the authors/presenters of papers were felicitated by presenting mementoes. The certificate of participation was also given to each presenter of the paper.

Technical Session-II

Sustainability in Built Environment

Er. H. S. Dogra, Invitee Speaker; Er. D. S. Sachdev, Chairman & Er. A.N Ramesh, Co-Chairman on the dais

Er. D. S. Sachdev, Fmr. DG. CPWD was the Chairman and Er. A.N Ramesh, SE (Retd.) R&B, Govt. of Telangana, Hyderabad was Co-Chairman and Er. H. S. Dogra, Fmr DG, CPWD was the Invitee Speaker of the Technical Session-II. The Chairman, the Co-Chairman and Invitee Speaker of the Session were welcomed by presenting flower of bouquet.

Opening remarks of the Chairman

The Chairman, Er. D. S. Sachdev in his opening remarks welcomed the authors and invitee speaker. He underlined the importance of the theme of this Session – 'Sustainability in Built Environment' and invited Er. H.S. Dogra, Invitee Speaker to deliver his presentation.

Er. H.S. Dogra, the Invitee Speaker presented a talk on the topic 'Sustainability in Built Environment –An Overview.' He said that the sustainability is a state that requires humans to carry out their activities in a way that protects the functions of the Earth's ecosystem as a whole.

Er. H. S. Dogra, Invitee Speaker

The Earth's ecosystem includes plants and animals, as well as humans and their physical environment. This also includes key elements of human needs: the economic, environmental, social and cultural conditions for societies' existence.

The construction sector plays a key role in sustainable development because this sector drives national economies, supports poverty reduction through job creation, consumes major resources, influencing environmental and social conditions, represents a large share of societal assets, offers significant potential for sustainability improvements.

In his concluding remarks he said that sustainability impacts every aspect of life. Material choice matter. He suggested to prefer local and traditional materials.

The Chairman invited the authors of paper to deliver their presentations.

Paper Presented

First paper was presented by Ar. Alankar Jharia, Ph.D. Scholar, Department of Architecture and Planning, National Institute of Technology, Raipur (C.G.), on "Cultural Sustainability in Built Environment: Lessons from Gond Houses in Mandla, M.P." In his presentation he mentioned that cultural sustainability in India's built environment emphasizes the integration of traditional cultural wisdom with modern technology to create inclusive, resilient, and environmentally conscious spaces.

Summing Up

Before concluding the Session, the Chairman invited questions related to paper presented by the Authors & Invitee Speaker. There were many questions raised by the audience and was replied by the respective speaker.

Thereafter, Invitee Speaker, the Chairman, Co-Chairman and all the authors/ presenters of papers were felicitated by presenting mementoes. The certificate of participation was also given to each presenter of the paper.

Technical Session-III

Technological Interventions in Mass Housing

Er. Sanjay Pant, DDG, BIS, Invitee Speaker; Er. B.C. Tripathy, Chairman & Er N Ravindra Reddy, Co-Chairman on the dais

Er. B.C Tripathy, Fmr Engineer-in-Chief, (Works Department) Odisha was the Chairman and Er. N Ravindra Reddy, EE (Retd) R&B, Govt. of Telangana, Hyderabad was Co-Chairman and Er. Sanjay Pant, DDG, BIS, was the Invitee Speaker of the Technical Session-III. The Chairman, Co-Chairman and Invitee Speaker of the Session were welcomed by presenting flower of bouquet.

Opening remarks of the Chairman

The Chairman Er. B.C Tripathy in his opening remarks welcomed all the delegates and the authors and invitee speaker. He underlined the importance of the theme of the Session – 'Technological Interventions in Mass Housing' and invited Er. Sanjay Pant, Invitee Speaker to deliver his presentation.

In his address, Er. Sanjay Pant said that all building materials are competing with each other. They are to be used based on their quality, availability, economical

Er. Sanjay Pant, Invitee Speaker

criteria and availability of skilled labour. He outlined the initiatives of BIS in area of Civil Engineering and Building Construction, where more than 1850 Indian Standards on building materials have been developed and these building materials standard encompasses wide variety of alternatives. He further outlined the initiatives of BIS in development of Standards for different types of bricks like common burnt building bricks, perforated building bricks, hollow building bricks, flyash bricks, flyash cement bricks, concrete block, and hollow concrete blocks mentioned each one of these have separate IS Codes. He informed various types of alternatives of bricks being used in green buildings and their respective IS Codes. He talked about use of flyash, waste stone, copper slag, steel slag, iron slag, construction demolition waste (C&D waste) etc.

The Chairman invited the Authors of paper to deliver their presentation.

Paper Presented

First paper was jointly presented by Dr. Pawan Kumar TCPO, Govt. of India and Ms. Meenal Jyotika, Dev

Ops Engineer, Cloud202 Technology Solutions Pvt. Ltd. on "Technological Interventions in Mass Housing Case Study: Light House Project, Chennai" In their presentation they informed that technological interventions in mass housing may have two folds: firstly, it fulfills the needs of updated technology such as 3D printing, modular construction, prefabricated construction, etc for mass construction of housing units at safe, speedy and economical levels to supply housing stocks to the mass. Secondly, it provides digital property (housing) walk-through (in visualizing, understanding, purchasing, etc.), computation design, online/app-based solutions (to maintain the housing stocks in an efficient manner), etc. Light House Projects (LHPs) under PMAY-U are model housing projects built with alternate technologies suitable to geo-climatic and geo-hazards conditions of the regions. Precast concrete technology used in the Light House Project of Chennai is fully mechanized and produced in controlled factory environments and therefore the quality of precast elements is superior which enhances durability and safety of the structures.

Second paper was jointly presented by Ms. Simran Shaikh, Student, NIT Raipur and Dr. Debashis Sanyal, Prof. NIT Raipur on "Deployable Shelters as a Scalable Solution for Post-disaster Mass Housing". In their presentation they mentioned that natural disasters have become more frequent and severe due to climate change, resulting in large-scale displacement and housing crises worldwide. Traditional post-disaster housing solutions, including tents and makeshift shelters, often fail to provide sustainable and dignified living conditions. Deployable shelters offer a revolutionary alternative, combining rapid deployment, modularity, and sustainability. These shelters can be transported, assembled quickly, and scaled up to accommodate large populations, making them ideal for post-disaster scenarios.

Third paper was jointly presented by Sristi Tokdar, Student, NIT Raipur and Dr. Debashis Sanyal, Prof. NIT Raipur on "Mass Housing Re-Imagined: Harnessing Technology for Efficient Solutions" In their presentation they mentioned that in response to rapid urbanization and the growing need for affordable housing, adopting technological innovations in mass housing will be crucial. They discussed how emerging technologies will revolutionize the design, construction, and management of large-scale housing projects, helping cities deliver cost-effective, high-quality solutions. Smart technologies like energy management systems and IoT devices, which will optimize energy use, reduce costs, and enhance living conditions.

Summing Up

Before concluding the Session, the Chairman invited questions related to paper presented by the Authors & Invitee Speaker. There were many questions raised by the audience and was replied by the respective speaker.

Thereafter, Invitee Speaker, the Chairman, Co-Chairman and all the authors/presenters of papers were felicitated by presenting mementoes. The certificate of participation was also given to each presenter of the paper.

Technical Session-IV

Innovative Construction Materials

Dr. Anil Joseph, Consultant Kerala & National President IGS was the Chairman and Er. Marri Ramesh, EE (Retd) PR GoTG-Hyderabad was the Co-Chairman and Dr. Mahesh Kumar, Fmr. E-in-C, Haryana, PWD & Past President IBC was the Invitee Speakers of the Technical Session-IV. The Chairman, Co-Chairman and Invitee Speaker of the Session were welcomed by presenting flower of bouquet.

Opening remarks of the Chairman

The Chairman, Dr. Anil Joseph in his opening remarks welcomed all the delegates, authors and invitee speaker. He underlined the importance of the theme of the Session – 'Innovative Construction Materials' and invited Dr. Mahesh Kumar, to speak on this occasion.

Dr. Mahesh Kumar, Invitee Speaker

Dr. Mahesh Kumar in his presentation covered in brief the topic - Sustainable and Green Building Design, Smart Buildings and IoT Integration, 3D Printing and Modular Construction, Advanced Materials, Energy Efficiency and Renewable Energy Integration, Biophilic Design, Construction Robotics and Automation, Resilient Infrastructure and Disaster-Preparedness, Urban Mobility Integration, Circular Economy and Waste Reduction and Social and Cultural Innovations. He briefly discussed about Net-Zero Energy Buildings and Passive Design using architectural strategies.

Buildings are becoming "smarter" by using sensors to monitor and adjust things like lighting, temperature, and air quality in real-time. This leads to greater energy efficiency and improved occupant comfort.

He talked about Self-Healing Concrete that can repair itself when it cracks, increasing the durability and lifespan of structures.

Windows with Smart Glass can adjust their tint depending on the amount of sunlight, reducing the need for artificial lighting and cooling.

He talked about Urban Farming, Robotic Construction, Drones in Construction, Flood-Resistant Buildings, Recycled Materials in Construction, Inclusive Design etc.

The Chairman invited the Authors of paper to deliver their presentations.

Paper Presented

First paper was presented by Dr. K.M. Soni, Fmr. ADG, CPWD on topic "Innovations in Building Construction." In his presentation he informed that Innovation is a key driver of progress in every sector. In construction industry, innovation is sought in various fields such as materials, methods, and processes to make the buildings efficient, sustainable and cost effective.

Innovation in construction techniques becomes essential for safety, sustainability, and speed. The use of off-site prefabricated and 3D modular and 3D printing construction is going to replace most of the traditional construction. Monolithic construction using innovative formwork and walling system will replace traditional steel and plywood formwork.

Second Paper was jointly presented by Shri Pradipta Ku Panigrahi, Founding Director and Shri Ansuman Kar, System Developer, Carbon Out Techcom Pvt. Ltd. on the topic "A Smart Sustainable Solution for Surface Illumination and Infrastructure Enhancement". They mentioned that Paver 360 is a groundbreaking innovation that combines safety, sustainability, and smart technology into a single solution. By addressing the challenges of railway and road infrastructure with energy-efficient and durable surface indication, Paver 360 sets a new standard for future urban development.

Summing Up

Before concluding the Session, the Chairman invited questions related to paper presented by the Authors & Invitee Speaker. There were many questions raised by the audience and was replied by the respective speaker.

Thereafter, Invitee Speaker, the Chairman, Co-Chairman and all the authors/ presenters of papers were felicitated by presenting mementoes. The certificate of participation was also given to each presenter of the paper.

Technical Session-V

Safety and Construction Welfare Measures

Er. Devendra Gill, Invitee Speaker; Dr. S. N. Rao, Chairman; Dr. I. S. N. Raju, Co-Chairman on the dais

Dr. S.N. Rao, Fmr. DG-ESCI, Hyderabad was the Chairman and Dr. I.S.N. Raju, Fmr. CE (Irrigation), Hyderabad was the Co-Chairman and Er. Devendra Gill, Executive Director-Safety, Delhi Metro Rail Corporation Ltd., Invitee Speaker of the Technical Session-V. The Chairman, Co-Chairman and Invitee Speaker of the Session were welcomed by presenting flower of bouquet.

Opening remarks of the Chairman

The Chairman, Dr. S.N. Rao in his opening remarks welcomed all the delegates and the authors and invitee speaker. He underlined the importance of the theme

of the Session – 'Safety and Construction Welfare Measures' and invited Er. Devendra Gill, Invitee Speaker to speak on the occasion.

Er. Devendra Gill, Invitee Speaker

Er. Devendra Gill, Executive Director-Safety, Delhi Metro Rail Corporation Ltd., Invitee Speaker presented his presentation on four topics namely – Construction Safety Challenges; DMRC Strategy to mitigate the site challenges; Phase-I, II & III Learnings & Construction Worker's Welfare Measures. He described about the POTENTIAL Threat from External Traffic and Approach on Safety Management.

He discussed the various Challenges of Safety Management that DMRC faced during execution of Metro Rail Projects. He said that close to 25,000 workforce were engaged in various works in Tunnels and on Via-duct on round the clock basis during Phase-II which touched 32,000 in Phase-III. Public Interface at majority of the work sites, Effective Management of large no of Civil contracts working along the stretch spread all over Delhi, Involvement and management of large number of Sub Contactors, Sub- sub contractors and Petty contractors and Unskilled/ Semi-skilled workforce not being Safety conscious were the major challenges.

He informed about the requirement of minimum age for site team involved in lifting operation i.e. minimum age of 28 years for crane operator and 24 years for other site personnel like riggers, signalers and helpers etc.

Paper Presented

First paper was presented by Er. K.L.Mohan Rao, President, Construction Industry Development Academy on "Ensuring the Safety of Construction Workers: Challenges and Best Practices." In his presentation he informed that construction is one of the most hazardous industries, accounting for a significant percentage of workplace injuries and fatalities worldwide. Effective training, proper use of personal protective equipment (PPE), and technological advancements were discussed through PPT.

Second paper was presented by Er. Rajesh Kr. Das, TCS (SSG); Chief Manager, HR, ONGC Ltd, Agartala on "Safety and Construction Welfare Measures." He commenced his presentation with poem.

"Safety keeps Workers Safe and Sound,
Welfare lifts them from the ground,
Together they build Homes so Tall,
Making life better for One and All"

Through his presentation he informed that Indian construction industry is the major growth engine for infrastructure and economic development. However, it is envisaged that there are several challenges for safety and welfare aspects concerning the workforce.

He discussed about safety and construction welfare issues within the Indian context, assessing risks, the legal framework, prevailing practices and emerging technologies. Reviewed the current measures, identified gaps and areas for improvement and a holistic framework for improving safety and welfare. He advocated the support of stakeholder engagement, proactive risk management and technological integration as essential components to thrive in a safety culture. He recommended actionable recommendations for the Indian Building Congress and members for a safer, healthier and more productive construction environment that would benefit the workers and the industry at large.

Summing Up

Before concluding the Session, the Chairman invited questions related to paper presented by the Authors & Invitee Speaker. There were many questions raised by the audience and was replied by the respective speaker.

Thereafter, The Chairman, Co-Chairman, Invitee Speaker and all the authors/presenters of papers were felicitated by presenting mementoes. The certificate of participation was also given to each presenter of the paper.

Valedictory Session – April 12, 2025

Dignitaries on Dais

The Valedictory Session of Mid Term Session and National Seminar on "Innovations in Built Environment" was held on April 12, 2025 in National Academy of Construction (NAC), Cyberabad, Hyderabad, Telangana. Er. V. Suresh, Fmr. CMD, HUDCO Ltd. & Past President, IBC was the Chief Guest of the Valedictory Function. The Chief Guest was joined on the dais by Er. C. Debnath, President, IBC; Er. O.P. Goel, Founder President, IBC; Er. G. Rajeshwar Reddy, Chief Engineer, R & B Department, Govt of Telangana & Chief Patron, IBC Telangana State Chapter; Er. P. Suryaprakash, Chairman, IBC Telangana State Chapter; Er. M. Satyanarayana, Hony. Secretary, IBC Telangana State Chapter; Er. Mayank Tilak, Vice President, IBC & Fmr. SDG, CPWD; Er. Sudhansu Shekhar Rai, Vice President, IBC & Engineer-in-Chief, Bihar Construction Department; Bihar. Er. V. R. Bansal, Hony. Secy., IBC and Er. I.S. Sidhu, Executive Director & Chief Rapporteur.

Er. C. Debnath, President, IBC welcomed the Chief Guest, dignitaries and the delegates present in the hall. He thanked Invitee Speaker and all the authors for the paper presented during Technical Sessions. He thanked the audience for careful listening and raising the question after the Technical Sessions.

Er. O.P. Goel, Founder President, IBC while addressing the gathering in the Valedictory Session said that the Telangana State Chapter was dormant for many years. With sustained efforts of worthy President Er. Debnath Ji and the co–operations of Professionals at Hyderabad and the support of Govt of Telangana, this has been revived.

Er. O.P. Goel, Founder President, IBC addressing the Gathering

He said that the deliberations in the Seminar will lead to conclusions and recommendations which would be useful to all the stake holders.

Er. V. Suresh, Past President, IBC & Former CMD, HUDCO, the Chief Guest of the Session mentioned that IBC has grown in Numbers as well as in Spread all over the country. He informed that Kerala Chapter

will also be established very soon. He appreciated the topics taken up and presented by all the authors from Technical Sessions Ito V. He discussed in brief through his presentation about Low Energy Waste Product and use of steel, cement and other building material economically. He mentioned about the Rural Development taking place in the country and wanted the involvement of IBC in this area. He suggested that 1BC can bring out paper on Safety in Construction with the help of Er. Devendra Gill, Executive Director-Safety, Delhi Metro Rail Corporation Ltd. He wanted a dedicated group to work on Net Zero emission also.

He also felt that since IBC is 34 year old now, but the membership has not grown that fast. At present the number of IBC members are 7000 to 8000 whereas it should have been 15000 to 16000. He strongly believed that there should be a drive to include young members in the IBC targeting age group of 32 to 35 years that will make the organisation vibrant.

Recommendations

Er. I.S. Sidhu, Executive Director, IBC and Chief Rapporteur presented the recommendations emerging out of the papers accepted, presentations made and discussions held during the five Technical Sessions.

Er. I.S. Sidhu, Chief Rapporteur presenting the Recommendations

1. The Leadership support, changed management strategies, and tailored incentives are critical to overcoming resistance and embedding a culture of digital transformation. Transformation in an organization demands targeted training, professional certifications, and the establishment of BIM champions to drive internal knowledge sharing.
2. Integrating EV charging stations in high-rise residential buildings is crucial for sustainable urban development. Addressing challenges related to space, electrical capacity, and regulations ensures cities can meet the growing demand for eco-friendly transportation. Innovative policies, stakeholder collaboration, and advanced technologies, needs to be evolved for creating resilient and sustainable urban ecosystems.
3. AI can revolutionize the way construction projects are managed and executed. AI has the potential to significantly improve the efficiency, safety, and sustainability of construction projects. Agencies engaged with development of Built Environment need to give specific emphasis for grouping AI.
4. India often grapples with implementation gap due to which the development of urban projects and infrastructure suffers. Recent innovations and digital transformation by the PRAGATI and Whole of Government Platforms can be adopted for urban planning and infrastructure development.
5. Need to address critical gap in addressing how traditional methods can be practically adapted to meet modern demands for structural durability, cost-effectiveness, and regulatory compliances. Stabilized mud blocks reinforced with low-carbon cement or bamboo composites treated for fire resistance can enhance durability while retaining thermal benefits.
6. Apart from construction, both supervision of housing stocks and management of estate assets require technological interventions at stakeholder levels such as builders, housing promoters, real estate managers, buyers, sellers, loan providing institutions, etc. and therefore it is important to appraise these technological performance and outcomes.
7. Deployable shelters represent a breakthrough in post-disaster mass housing, offering an efficient, scalable, and sustainable alternative to traditional relief efforts. By incorporating advancements in materials, prefabrication, and modularity, these shelters can effectively bridge the gap between emergency response and long-term recovery. As technological innovations continue to evolve, deployable shelters can play a vital role in

strengthening disaster resilience and supporting sustainable urban planning for future emergencies.

8. Need to adopt Smart technologies as these enable real-time monitoring, optimizing energy use, enhancing security, and improving building operations. Prefabrication and modular construction reduces time and costs, minimize waste, and allow for scalable, flexible designs. BIM enhances collaboration and resource management, streamlining project execution.

9. Innovation in civil engineering has become a necessity as time has become an important component of the project management. Energy efficient and sustainable offsite construction techniques will be used more in future. Some of the futuristic potential technologies are 3D printing technology, 3 D modular construction, pre-fab concrete construction, modular walling materials, robotics and AI driven project monitoring and execution tools.

10. Speed of construction is of paramount importance because the infrastructure facility is always a prerequisite to development of an area. More so, use of precast concrete makes the structure amenable to better aesthetic appeal, due to better finish and adaptability to innovative shapes.

11. Reality Capture: Reality capture is a technology that transforms the physical world into virtual environment using software, allowing monitoring of construction project progress and comparison of as-built and design intent models for quality control. It facilitates rich documentation, enabling digital site revisits and data checks. This approach reduces network, increases efficiencies by eliminating unnecessary job site visits and walkthroughs, and reduces risk by saving all documentation that helps validate delays. Application of such technology is the need of the hour to achieve desired implementation of progress in any project.

12. Ensuring the safety of construction workers is a shared responsibility among employers, regulatory bodies, and workers themselves. Through stringent enforcement of regulations, continuous education, and technological integration, workplace accidents can be significantly reduced, fostering a safer working environment for all construction professionals.

13. Enhancing safety and construction welfare is a fundamental imperative for the Indian construction industry. By embracing an integrated response encompassing strengthening regulations, cultivating a culture of safety, harnessing technology and developing stakeholder cooperation, the industry will effectively improve its safety performance.

Er. V.R. Bansal, Honorary Secretary, IBC, presenting the Vote of Thanks

Er. V.R.Bansal, Honorary Secretary, IBC, presented the Vote of Thanks. He thanked Er. V. Suresh, Past President, IBC, the Chief Guest. Er. O.P. Goel, Founder President, IBC; Er. C. Debnath, President, IBC; Er. P. Suryaprakash, Chairman, IBC Telangana State Chapter; Er. M. Satyanarayana, Hony. Secretary, IBC Telangana State Chapter; Er. Mayank Tilak, Vice President, IBC; Er. Sudhansu Shekhar Rai, Vice President, IBC and Er. I.S. Sidhu, Executive Director & Chief Rapporteur. He thanked all the Invitee Speakers and presenters of the Technical Papers for sharing the knowledge through presentation of their papers. He thanked all the participants for having travelled from far off places in large numbers for their participation and making the event successful. He specially thanked Er. G. Rajeshwar Reddy, Chief Engineer, R & B Department, Govt of Telangana & Chief Patron, IBC Telangana State Chapter and all the members of the organizing team and Talangana State Chapter for organizing such a memorable and successful event.

The Valedictory Session concluded by playing National Anthem followed by dinner.

108th Governing Council Meeting

108th GC Meeting in Progress

108th Meeting of the Governing Council was held on 13.04.2025 in Engineering Staff College of India (ESCI), Gachibowli, Hyderabad, Telangana.

At the outset, President welcomed Founder President, Vice Presidents, Hony. Secretary, Executive Members, Governing Council Members, Past Presidents, Permanent Invitees of EC & GC , Executive Director, other Staff of IBC HQ to the 108th meeting of Governing Council of IBC. President on behalf of IBC expressed his sincere thanks to Dr. P. Surya Prakash, Chairman & Er. Satyanaryana Mendu, Hony Secretary of IBC, Telangana State Chapter for hosting Mid Term Session & Seminar of IBC in the capital of Telangana. He specially thanked Er. G. Rajeshwar Reddy, Chief Engineer, R & B Deptt, Govt of Telangana for extending warm welcome and arrangements made for the successful conduct of Mid Term Session & Seminar at Hyderabad.

Welcome Address was delivered by Dr. P. Surya Prakash, Chairman, IBC Telangana State Chapter. In his address he informed that the ESCI building is hosting the 1st meeting after its completion. The ESCI building was awarded the Best Concrete Structure awarded. This work was completed under the able guidance of Dr. P. Surya Prakash.

Copy of agenda for discussion was circulated to all GC Members present in the hall. Each agenda points were discussed in detail.

Representatives from all the State/Local Chapter spoke about the progress and achievements made by them. Their achievements were greeted by all the members.

The GC members appreciated the efforts of Er. C. Debnath, President, IBC in conducting meeting, reaching out chapters and activating them.

During the discussion, President made an earnest appeal to the Executive Committee members to arrange advertisement of Rs. 50,000/- each and appealed to GC members to arrange advertisement of Rs. 30,000/- each for Built Environment.

Er. G. Rajeshwar Reddy, Chief Engineer, R& B Department, Government of Telangana mentioned that advice has been received from Special Secretary, R&B Department, Govt. of Telangana to sign MoU with IBC for conducting the training program and other technical activities across the State.

195th Executive Committee Meeting

195th Executive Committee Meeting was jointly organised by Indian Buildings Congress, Gujarat State Chapter, and R&B Department, Govt. of Gujarat on May 4, 2025 at Circuit House, Gandhinagar.

195th EC Meeting in Progress at Gandhinagar

Er. C. Debnath President, IBC extended a warm welcome to the Er. O.P. Goel, Founder President, IBC; Shri Pradeep Mittal, Past President, IBC; Er. Sudhansu Shekhar Rai, Vice President, IBC; Er. V.R Bansal, Hony. Secretary, IBC; Er. M. Nagaraj, FIE, Executive Member, IBC; Col. (Dr.) Anand Mathialagan (Retd.), IBC and Er. I.S. Sidhu, Executive Director were present in the meeting. He highly appreciated the IBC, Gujarat State Chapter; R & B Department, Govt of Gujarat for organizing one day Technical Seminar & 195th EC meeting at Gandhinagar. President, IBC categorically mentioned that such an event has taken place in Gandhinagar after a long time. It was possible due to special efforts of IBC, Gujarat State Chapter and R&B Department, Govt of Gujarat.

Inaugural Session and 196th Executive Committee Meeting

196thExecutive Committee Meeting and Technical Seminar on "Recent Advances in Iconic Building Projects" was jointly organised by Indian Buildings Congress, Odisha State Chapter and Works Department, Govt. of Odisha on June 8, 2025 at Hotel Lyfe, Bhubaneswar.

Dignitaries on Dais

Shri Prithiviraj Harichandan, the Hon'ble Minister, Law, Works and Excise, Govt. of Odisha was the Chief Guest who inaugurated the National Seminar. Er. Chinmay Debnath, President; Er.O.P.Goel, Founder President; Maj Gen. Ashok Kumar, AVSM (Retd) & Immediate Past President; Er. V.R.Bansal, Hony. Secretary, Er. I.S. Sidhu, Executive Director of IBC, Executive Members of IBC, Chief Engineers, MDs of PSUs of Eastern States and Odisha attended the National Seminar. Official delegates from State PWD, CPWD, OBCC, OSPHWC, IDCO. Energy Dept, RW-RD Dept., WATCO-HUD, delegates from knowledge partners-VSSUT, Burla, ITER-SOA, OUTR, ISHRAYE, FSAI, IIA, delegates from consulting architectural and engineering design organisations, builders, construction agencies, sponsors, members of IBC Odisha Chapter, Patrons, advisors, functionaries and members of IBC Odisha Chapter, Organising Committee and Technical Committee of the National Seminar totaling more than 200 attended the Seminar. A press meet was organised on the evening of 7thJune which was well attended and widely covered.

Shri Sanjay Pant, DDG (Standardizations), Bureau of Indian Standards (BIS), Shri M. Murugesan, Chief Structural Engineer, URC, Shri Sunil Kumar Samantaray, GM TCEL, Shri Pyari Mohan Misra, EIC E-PCEI, Odisha, Shri Devendra Gill, ED (Safety), DMRC (by VC) attended the seminar as invited Keynote Speakers. The technical session was held in four sessions and divided into sub-themes of (i) Interdisciplinary approach in Building Engineering,

(ii) Safety in Design and Construction of Buildings, (iii) Innovative Construction Techniques & Design, (iv) Sustainability. Er. Ranjit Kumar Majumdar, IAS (Retd) (Tripura), Shri Dipak Kumar Sahoo, VC, VSSUT, Er. Pyari Mohan Mishra, EIC (Ele.) and Er. Lingaraj Gowda, EIC (Design), DOWR chaired the technical sessions. Ten authors and three sponsors presented their projects in the technical sessions.

Inaugural Session:

Shri Bijoy Chandra Tripathy delivering the Welcome Address

Shri Bijoy Chandra Tripathy, Chairman IBC Odisha Chapter welcomed the Chief Guest, Shri Prithiviraj Harichandan, Hon'ble Minister, Law, Works & Excise and expressed a deep sense of gratitude for his valuable guidance and motivation in organising the National level event.

Er. Chinmay Debnath addressing the Gathering

Er. Chinmay Debnath, President IBC outlined the vision, mission and action plan of IBC and the broad activities of HQ and its 25 State Chapters. He thanked Hon'ble Minister for his deep involvement and supporting the technical activities of the state and requested him for accepting the role of Chief Patron and permitting two rooms in O/o EIC (Civil), (Nirman Soudha) for functioning of the IBC Odisha Chapter in line with other States.

Er. O.P. Goel addressing the Gathering

Er. O.P. Goel, Fmr. DG (W), CPWD and Founder President, IBC described the origin of Indian Buildings Congress in 1992 under the recognition of HUD Ministry and establishment of its HQ in R.K. Puram, New Delhi. He elaborated the contribution made by IBC in the infrastructure development, particularly in built environment through regular workshops, seminars and training programs with participation of members from different disciplines.

Shri M. Murugesan, the invited Keynote Speaker, presented the talk on "Challenges in Underground Metro Construction and Mitigation through Alternative Design". He elaborated the design and construction of 35 m deep RCC diaphragm wall (D-wall) using PLAXIS analysis (software) and high precision trench cutters and excavators (imported from Germany) were utilised for controlled excavation. He recommended the alternative design of D-wall with shear pin option which has advantages in safety, stability, economy and time control. His presentation drew the attention of guests and delegates, particularly in the context of the proposed re-thinking of Bhubaneswar metro as underground and on realigned route.

The Technical Souvenir was released by Chief Guest, Shri Prithiviraj Harichandan, the Hon'ble Minister, Law, Works and Excise, Govt. of Odisha.

Shri Prithiviraj Harichandan, the Hon'ble Minister, Law, Works and Excise, Govt. of Odisha delivering the Inaugural Address

In his inaugural address, Hon'ble Minister Shri Prithiviraj Harichandan highlighted the blueprint of State Government in the building sector. He said that the immediate challenges before Government is to complete the ongoing building projects and put them to use for the public. He complemented Indian Buildings Congress for organising the series of circle-level technical seminars and the National Seminar jointly with the State Works Department and assured complete collaboration and technical support from the State to IBC in this direction. He advised IBC to make IBC e-journals available to all the engineers and professionals of the state.

Er. V. R. Bansal delivering the Vote of Thanks

Er. V. R. Bansal, Hon. Secretary, IBC offered a hearty vote of thanks to the Chief Guest, Hon'ble Minister, the IBC functionaries, invited guests, speakers, authors, patrons, advisers, organising committee, delegates, sponsors and the press for their active participation in the National Seminar and making it a success.

The following important points were discussed and approved in the EC Meeting:

1. The proposal for signing of MoU between NAC & IBC.
2. The theme for 28th Annual Convention and National Seminar to be held at Nagpur as "Viksit Bharat 2047 and Infrastructure Development" with sub-themes as follows: -
   i. Challenges, Opportunities & Development in Urban Areas
   ii. Technology and Innovation Excellence
   iii. World Class Multimodal Infrastructure
   iv. Research, Development, Innovation & Frontier Technologies for the Future
3. The topic for IBC Journal-2025 "Time Management in Construction Contract".
4. The sub-committee comprising of Er. K.L. Mohan Rao as Chairman and Lt. Col. Onkar C Bhandurge as member for bringing out a user-friendly Handbook on "Rain Water Harvesting", EC also authorized Chairman may further propose regarding incorporating the members as per the requirement.

Meeting with Hon'ble Minister PWD Odisha

Er. C. Debnath, President, IBC alongwith Er. B.C. Tripathy, Chairman, IBC Odisha Chapter and Chief Engineer (Building) Odisha; Er. P. Samantara, Chief Engineer (Building) and Er. Trinath Behera, Hony. Secretary, IBC Odisha Chapter met with Shri Prithiviraj Harichandan Hon'ble Minister, PWD Odisha at his residential office on 05/05/2025.

Meeting with Hon'ble Minister PWD Odisha

President conveyed gratitude to Minister for giving time and briefed the Hon'ble Minister about IBC, it's aim & objectives, structure & how it can support the Govt. of Odisha. He also requested for support from PWD Odisha in holding 196th EC meeting along with National Seminar on 8th June at Bhubaneswar. The Hon'ble Minister agreed to grace the programme as Chief Guest. He also agreed to provide two rooms for office purpose of IBC in PWD Complex.

The meeting was very much successful with the persuasion of Er. B.C. Tripathy, Chief Engineer (Bldg.).

After the meeting with Hon'ble Minister PWD Odisha, they visited to Nirman Bhawan, Engineer-in-Chief's Office where the engineers, other professionals, consultants including Er. Ashok Basa, Past President, IEI were present.

V.R. Vaish Memorial Lecture

The V.R. Vaish Memorial Lecture on the topic "Project Management vis-a-vis Cost, Quality & Time" was organisd by IBC in the Seminar Hall of IBC HQ Building on June 3, 2025 in the memory of Late Er. V.R. Vaish, the first Director General (W) of CPWD. Er. Mohd. Kamal Ahmad, Spl. D.G., CPWD was invited as Chief Guest on this occasion.

V.R. Vaish Memorial Lecture

The Chief Guest, Er. Mohd. Kamal Ahmad, Spl. D.G.,CPWD; Er. O.P. Goel, Founder President, IBC & Fmr. DG (W),CPWD; Er. C. Debnath, President, IBC; Er. K.K. Kapila, CMD, ICT Pvt. Ltd. & Past President, IBC; Er. D.S. Sachdev, Director, (Training), IBC and Fmr. DG, CPWD; Er. V.R. Bansal, Hony. Secy & CE, MCD and Er. I.S. Sidhu, Executive Director, IBC were on the dais.

Past Presidents, IBC: Maj. Gen. Ahsok Kumar AVSM (Retd.); Er. B. Majumdar, Former DG, CPWD; Er. S.K. Vij, Former Member Engineering, Railway; Er. Deepak Narayan, Former E-in-C, Delhi PWD were present on the occasion and dignitaries on the dais were felicitated by offering Ang-Vastra and Memento by Er. C. Debnath, President, IBC.

The V.R. Vaish Memorial Lecture commenced with lighting of Ceremonial lamp by the Chief Guest, Er. Mohd. Kamal Ahmad. All the dignitaries on the dais joined in lighting of Ceremonial Lamp. After Lighting of Ceremonial Lamp, IBC Geet was played.

Er. Himangshu R. Vaish, Managing Director, Instapower Ltd., son of Late Er. V.R. Vaish and his family members joined the Lecture. All the dignitaries on the dais and off the dais paid their floral tribute to Er. Late V.R. Vaish.

Er. C. Debnath welcomed the family members of Er. Himangshu R. Vaish and all the dignitaries. To commemorate the day, two presentations were presented. First presentation was made by Er. K.K. Kapila on the topic "Procurement of Goods and Works on QCBS" and 2nd Presentation was made by Er. D. S. Sachdev on "Project Management vis-a-vis Cost, Quality & Time."

Speaking on this occasion, Er. O.P. Goel, Founder President, IBC said that V. R. Vaish Memorial Lecture was instituted by the IBC to commemorate Late Er. V. R. Vaish.

Late Er. Vaish worked in Central PWD from 1942 to 1979 a span of 37 years and held various positions and brought out excellent achievements wherever he worked. He was the last Engineer–in–Chief and the first Director General (Works) in CPWD. His association with IBC dates back from the setting up of IBC. He said that all of us should resolve to follow the ideals and traditions set forth by him.

Er. Mohd. Kamal Ahmad, Spl. D.G.,CPWD was requested to speak on this occasion. He thanked IBC for inviting him as Chief Guest and felt privileged in front of all Sr. CPWD Officers. He discussed in detail how Time, Cost and Quality are inter-related to each other in final outcome of any project.

Er. K.K. Kapila, CMD, ICT Pvt. Ltd. & Past President, IBC was requested to speak on the occasion. He remembered Late Er. V.R. Vaish as a real 'Karm Yogi'. About his topic "Procurement of Goods and Works on

QCBS" , he discussed about difficulty in acceptance of L-1 bid.

Er. D.S. Sachdev, Director, (Training), IBC and Fmr. DG, CPWD was requested to speak on the topic "Project Management vis-a-vis Cost, Quality & Time." Before his presentation, he remembered his short span of working under late Er. V.R. Vaish when he was posted as ASW in Kolkata. He said that he learnt a lot from him.

He said that Project Management is about Planning, Organizing, Commanding, Coordinating and Controlling. He discussed the various stages of Project Management. He outlined the Key Elements of Project Management as Quality, Cost, Time and Effective project management ensures achievement of project goals within defined parameters of Quality Cost and Time.

At the end, Vote of Thanks was presented by Er. V.R. Bansal, Hony. Secy., IBC. He thanked the Chief Guest, Er. Mohd. Kamal Ahmad for sparing his time from his busy schedule and gracing the occasion. He thanked Er. Himangshu R. Vaish for attending the lecture along with his family members. He thanked Er.O.P. Goel, Founder President, IBC and all the Past Presidents and GC Members for sparing time and attending the Lecture. He thanked Er. C. Debnath, President, IBC and appreciated his efforts and contribution to make the IBC Stronger. The Lecture concluded with playing National Anthem.

II. TRAINING PROGRAMME

Two days Training Programme on External Cladding System in Buildings on May 20-21, 2025 at IBC HQ, New Delhi

Two days Training programme on "External Cladding System in Buildings" was organized by Indian Buildings Congress on May20-21, 2025 at IBC,HQ, New Delhi.

The programme was attended by 26 Engineers/ Architects which included senior officers as participants from DDA; MES; MPPWD; UPPWD; HPPWD; BCD, Bihar; UP Awas Vikas Centre for Excellence & Training and Tamil Nadu Housing Board. Er. Shri Mayank Tilak, Chairman, Training Committee & Vice President, IBC inaugurated the programme. Er. D.S. Sachdev, Fmr. DG, CPWD & Director Training, IBC introduced the participants with the need for External Claddings Systems in Building.

Certificate Distribution

Senior reputed Experts dealing with different External Cladding Systems were invited to the Programme as faculty members. The officers who attended the programme, took keen interest in the deliberations and appreciated the programme content and the presentations. At the end of the program, Participation Certificates were distributed to the Participants by Er. V.R. Bansal, Honorary Secretary, IBC and Director Executive Training, IBC.

III. PARTICIPATION OF IBC IN VARIOUS EVENTS

i) Meeting with Spl. DG, CPWD

Meeting with Spl. DG, CPWD

A Meeting with Er. Kamal Ahmad, Spl. DG,CPWD was held on April 4, 2025 in his chamber at Nirman Bhawan, New Delhi. Er. C. Debnath, President; Er. Mayank Tilak, Vice President; Er. V.R. Bansal, Hony. Secy. and Er. I.S. Sidhu, Executive Director from IBC were present in the meeting.

Er. C. Debnath, President, IBC requested him to participate in the activities of IBC which he agreed. The President invited Er. Kamal Ahmad as Chief Guest on the occasion of V.R. Vaish Memorial Lecture.

ii) Meeting with Engineer Member, DDA

Meeting with Engineer Member, DDA

A Meeting with Er. Sanjay Khare, Engineer Member, DDA was held on April 4, 2025 in Vikas Sadan, INA, New Delhi. Er. C. Debnath, President; Er. Mayank Tilak, Vice President; Er. V.R. Bansal, Hony. Secy. and Er. I.S. Sidhu, Executive Director from IBC were present in the meeting. The President briefed Er. Khare about the activities of IBC and requested his support in activities of IBC.

iii) Meeting with Executive Director HUDCO

Meeting with Executive Director, HUDCO

A Meeting with Er. S. Thangaraju, Executive Director, HUDCO was held on April 4, 2025 in his Chamber at India Habitat Centre, Lodhi Road, New Delhi. Er. C. Debnath, President; Er. V.R. Bansal, Hony. Secy.; and Er. I.S. Sidhu, Executive Director from IBC were present in the meeting. There were discussions about the involvement in activities of IBC, training programme etc.

IV. NEWS OF ACTIVITIES AT IBC CHAPTERS

A. IBC Kota Local Chapter

i) World Earth Day

Indian Buildings Congress Kota Chapter organized World Earth Day on April 22, 2025. On this occasion, Shri Suresh Kumar Bairwa, Chairman, IBC Kota Chapter mentioned that the World Earth Day is celebrated on April 22 every year. It was first observed in the United States in 1970 and gradually became an international movement, now involving more than 190 countries. He highlighted the theme of this year "Our Power, Our Planet," This theme underscores the urgent need for renewable energy to combat climate change and environmental degradation.

Shri Piyush Kumar Goyal, from Akaar Consultants, Kota, was the Keynote Speaker on this occasion. He mentioned that a global target has been set to triple renewable energy production by the year 2030. He said that the objective of celebrating World Earth Day is to raise awareness and encourage actions to protect our planet. It promotes a sense of collective responsibility, emphasizing that small consistent efforts such as saving water, reducing plastic use, planting trees and recycling waste can lead to significant change.

World Earth Day Celebrated

The programme was also addressed by Shri Dhirendra Mathur, Fmr. C.E., PWD and Shri P.K. Jain Fmr. IBC Chairman.

Shri Hemant Kumar Sharma, Hony. Secretary IBC Kota Chapter presented Vote of Thanks.

ii) World Environment Day

Indian Buildings Congress Local Chapter Kota celebrated World Environment Day on June 5, 2025 at PWD Campus, Nayapura, Kota. Shri Nishu Gupta, Addl. CE, PWD was the Chief Guest at the event. He discussed how environmental pollution is increasing rapidly and highlighted its consequences. Plastic Bags are the Biggest Cause of Environmental Pollution Today. It can be reduced environmental pollution by stopping the use of plastic bags.

World Environment Day Celebrated

Er. Suresh Kumar Bairwa, Chairman, IBC Kota Local Chapter stated that the theme of World Environment Day 2025 is related to plastic pollution, which has become a major environmental issue. Plastic pollution causes harm to wildlife, human health, and the environment. By working collectively, society can help resolve this issue.

Er. R.K. Gaur, Former President PREAS stressed on the need to raise awareness among the public about the harmful effects of plastic and e-waste and religious importance of Pipal tree, Tulsi ete. in daily life.

Er. P.K. Jain expressed his views to reduce the pollution by using cloth bags and by plantation in the near by areas of residence of each member.

Dr. Shantilal Jain, Former Ex. En., PWD spoke on the disposal of plastic and emphasized recycling practices also shared his views on how plastic and e-waste are problematic.

The event was conducted by Er. Hemant Kumar Sharma, Secretary IBC Kota Local Chapter and expressed his gratitude to the guests for their participation.

B. IBC West Bengal State Chapter

i) India Concrete Congress 2025

IBC Members at IBC Pavilion

Indian Buildings Congress West Bengal State Chapter participated in "India Concrete Congress 2025 and India International Construction & Equipment Expo 2025 held on April 17 to 19, 2025 at Biswa Bangla Exhibition Centre, Kolkata.

ii) President, IBC met Chief Engineer, PWD, West Bengal

Meeting with Chief Engineer PWD, West Bengal

A meeting between Er. C. Debnath, President, IBC and Er. Rajib Chattaraj, C.E., PWD (Roads), Government of West Bengal was held on May 29, 2025 in his Chamber at Esplanade, Kolkata. The President requested for holding technical activities for the engineering fraternity of State Govt. in collaboration with IBC which he agreed. The meeting was cordial and fruitful. Meeting was arranged by the sincere efforts of Er. Anirban Datta, GC member, IBC.

C. IBC Puducherry UT Chapter

i) World Heritage Day

World Heritage Day was organised by Indian Buildings Congress, Puducherry Chapter on 20th April, 2025 at Eegan Engineering Academy, Manavely, Ariyankuppam, Puducherry.

Dr. S. Thirougnaname, Chairman, Indian Buildings Congress, Puducherry Chapter elaborated the roles and importance of being Members of Indian Buildings Congress. He also explained the need and urgency about the Repair, Restore, Retrofit and Renovation of heritage buildings.

Er. M. Kandar Selvan delivering the Speech

Er. M. Kandar Selvan, Chief Town Planner (Rtd.), Town & Country Planning Department, Puducherry, delivered a speech on the topic "Conservation of Heritage in Puducherry". He talked about UNESCO World Heritage Sites, Grading of listed heritage buildings within the Boulevard town of Puducherry.

The Students from Various Engineering Colleges about 50 in number participated actively. The IBC Puducherry Chapter members Er. T.S. Semmal, Committee member, Er. T. Ilansezhian, Er. R. Sivaranjani and Er. P. Sivasankaran were made all the arrangements for the function.

Er. R. Devadossou, Committee member presented vote of thanks. The function ended with National Anthem.

D. IBC Jammu & Kashmir State Chapter

i) Webinar on World Heritage Day

A webinar was organised by National Institute of Disaster Management Govt. of India and Indian Buildings Congress, J&K State Chapter on World Heritage Day.

The two main experts on the occasion were Dr. Hakim Sameer Hamdani, Design Director INTACH and Dr. Rohit Jigyasu, Programme Manager, International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), Rome, Italy.

ii) Webinar on Fire Hazards and Safety in Buildings

IBC, J&K State Chapter held an online Webinar on "Fire Hazards and Safety in Buildings" on 9th April, 2025 at Srinagar. The expert speaker was Er. Aqib Hussain Mir, Deputy Director, Fire and Emergency Services, Srinagar. He spoke about the measures that need to be taken to ensure safety from fire. He gave a detailed presentation about the common fire hazards, fire triangle, various stages of fire, types of fire extinguishers and methods of extinguishing the fire.

iii) Webinar on World Environment Day

Webinar on World Environment Day

Webinar on World Environment Day was jointly organized by the National Institute of Disaster Management (NIDM) and IBC J&K State Chapter on the theme Combating Plastic Pollution.

Shri Randeep Kumar Rana, Senior Advisor, NIDM, inaugurated the Webinar and stressed on integrating environmental priorities into development planning, especially in ecologically sensitive areas. He highlighted the multifaceted impacts of plastic waste, on ecological balance, livelihoods, health, and food systems.

Dr. G.N. Qasba, Former Commissioner, SMC and Senior Advisor, IRADe, emphasized the need for strict enforcement of Plastic Waste Management Rules, vendor registration and decentralization. He called for encouraging entrepreneurs and waste workers to convert plastic waste into opportunity.

Dr. (Prof.) Ajay Bahl, Head of Emergency Medicine, Sir Ganga Ram Hospital, New Delhi, spoke in detail about the growing health concerns related to micro-plastics. He stressed the need to shift from a linear model of consumption to a circular economy through strategies like reduction, reuse, and recycling.

Shri Raj Kishore Kustwar, Expert from the Directorate of Rural Sanitation, J&K outlined ongoing efforts to set up segregation sheds and plastic waste management units in all Blocks and Villages of J&K. He emphasized on integrating plastic management with MGNREGA and involving Paryavaran Mitrs in villages for enforcing community-driven enforcement of single-use plastic bans.

Prof Amir Khan, Head Resilient Infrastructure Division at NIDM, outlined simple and practical steps

individuals can take to combat plastic pollution, such as carrying cloth or jute bags while shopping and refusing single-use plastics.

E. IBC Tripura State Chapter

i) World Heritage Day

World Heritage Day Celebrated

World Heritage day was organised by IBC, Tripura Chapter with the support of Engineers of South Tripura & also with the co- operation of Archeological survey of India, Tripura Zone on 24th April, 2025 at Pilak, South Tripura. Celebration was followed by visiting heritage buildings and a Seminar at PWD IB conference hall at Santirbazar, South Tripura.

ii) World Earth Day

Er. R.K. Majumder delivering Keynote Address

Indian Buildings Congress (IBC), Tripura State Chapter organized a Seminar in association with Geological Survey of India on the theme "Our Power-Our Planet" on 7th May, 2025 on the occasion of World Earth Day, 2025 at GSI Conference Hall, 79 Tilla, Agartala, Tripura West in hybrid mode. Officers of NE States also joined the Seminar. Er. Ratnakar Bhaisal, Director, (Technical), GSI, Government of India welcomed all the delegates in the Seminar. Shri Arun Bhadran, Superintending Geologist, GSI, Shillong presented online power point presentation on the topic of Microzonation study in Tripura. Shri D.P. Dangwal, Director, GSI, Shillong presented power point presentation on the topic of Activities of GSI on Engineering Geology with special reference to Tripura NER. Ms. Christabel Soraisam, Sr. Geologist, GSI, Agartala presented power point presentation on the topic of History of GSI and it's activities in Tripura, NER. Er. Kapil Baran Bhowmik, Fmr. DGM, HUDCO delivered his speech on renewable energy. Er. R. K. Majumder, Former Chief Engineer, UDD and Executive Committee Member, IBC delivered the Key Note speech on the theme of World Earth Day i.e. "Our Power-Our Planet". The seminar concluded with presidential address by Er. S. L. Bhaumik, Former Chief Engineer, PWD, Tripura & Chairman, IBC, Tripura State Chapter.

iii) Technical Visit of Construction Site of G+14 Storied Office Building at Gurkhabasti

The construction site of G+14 storied Office Building at Gurkhabasti was visited by Er. C. Debnath, President, IBC along with members of IBC Tripura State Chapter on 18th June, 2025. The Technical Visit was arranged with the support of Agartala Divn. III, PWD & construction agency EPIL Ltd. Members & other Engineers took keen interest in knowing the details of ongoing work at site.

Technical Visit of Construction Site G+14 Storied Office Building at Gurkhabasti

F. IBC Gujarat State Chapter

i) Technical Seminar at Gandhinagar

195th Executive Committee Meeting and Technical Seminar was jointly organised by Indian Buildings Congress, Gujarat State Chapter, and R&B Department, Govt. of Gujarat on May 4, 2025 at Circuit House, Gandhinagar.

Er. C Debnath, President, IBC; Er. O.P. Founder President, IBC; Er. P.R. Patelia, Secretary R&B Department, Govt. of Gujarat; Shri Pradeep Mittal, Past President, IBC; Er. Sudhansu Shekhar Rai, Vice President, IBC; Er. M. Nagaraj, Executive Member, IBC; Col. (Dr.) Anand Mathialagan (Retd.), Executive Member, IBC; Er. V.R. Bansal, Hony. Secy., IBC, Er. I.S. Sidhu, Executive Director, IBC; Er. K.S. Yadav, Vice Chairman, Madhya Pradesh State Chapter; Ar. Purushottam Doijode, GC Member, IBC, Er. Harish Chandra, Chief Engineer, MES & Chairman Gujarat State Chapter and other delegates were present in the Technical Seminar. 4 Number presentations were presented in the Session.

Presidential Address was delivered by Er. C. Debnath, President, IBC. He thanked Er. P.R. Patelia, Secretary, R&B Department, Govt. of Gujarat for accepting the proposal to host 195th Executive Committee Meeting and Technical Programme at Gandhinagar. He conveyed special thanks to Er. Patanjali Mishra, Superintending Engineer, Roads & Buildings Department, Govt. of Gujarat and their team for organising the programme and providing good accommodation to delegates.

In his address, Er. P.R. Patelia, Secretary, R&B Department, Govt. of Gujarat mentioned that he felt privileged for holding the Session in the Gujarat. He said that this was materialised due to sincere efforts of Er. C. Debnath, President, IBC. He hoped that this platform would provide Guidelines for future construction and maintenance of building.

Er. Harish Chandra, Chief Engineer, MES & Chairman Gujarat State Chapter thanked IBC for considering to organise 195th EC Meeting and Technical Programme in Gandhinagar.

In his address Er. O.P. Goel, Founder President, IBC mentioned that he is very happy to attend the Technical Programme organised by IBC Gujarat State Chapter in association with R&B Department, Govt. of Gujarat. He informed the background of formation of IBC and its vision. He mentioned that all State Chapters are functioning well under the Presidentship of Er. C. Debnath.

Vote of Thanks was presented by Er. V.R. Bansal, Hony. Secy., IBC. He thanked Er. P.R. Patelia, Secretary R&B Department, Govt. of Gujarat; Er. Harish Chandra, Chairman and Er. Girish Kumar H. Shah, Secretary of Gujarat State Chapter; Er. Patanjali Mishra, Superintending Engineer Roads & Buildings Department. He thanked to R&B Department, Govt. of Gujarat and IBC Gujarat Chapter and their team for organising such a beautiful Technical Session.

He also thanked Er. C. Debnath, President, IBC; Er. O.P. Goel, Founder President, IBC and other delegates who came from different States to participate in the Technical Seminar.

ii) World Environment Day

IBC Gujarat State Chapter celebrated World Environment Day on 5th June, 2025. Participants were welcomed by Er. Girish Kumar H. Shah, Hony. Secretary, IBC Gujarat State Chapter. The importance of Environment Day was elaborated by Er. Umang Rawal and Dr. G.P.V. Vadodaria. Vote of thanks was delivered by Col. Manish Dhaka, Treasurer of Chapter.

G. IBC Assam State Chapter

i) President, IBC met Commissioner & Secy., PWD (NH & Bldg.) Assam

Er. C. Debnath President, IBC met with Commissioner & Secretary, PWD (NH & Bldg), Assam on 19/05/2025 in his office at Guwahati along with Er. Dilip Deka Chairman & Er. Pulak Sarmah, Hony. Secy of IBC, Assam State Chapter; Er.Y.L.Singh, GGM, NPCC Ltd. and GC member of IBC and other Engineers of NPCC were also present in the meeting. Various aspects related to IBC were discussed including hosting one National programme at Guwahati on North East Development programme. He discussed the activity of Assam State Chapter and requested for allotment of two rooms at PWD complex for IBC Assam State Chapter.

Meeting with Commissioner & Secretary, PWD (NH & Bldg.) Assam

H. IBC Meghalaya State Chapter

i) President, IBC met Secretary, North Eastern Council (NEC)

Meeting with Secretary, North Eastern Council (NEC)

Er. C. Debnath, President, IBC met Er. S. K. Balla, ITS, Secretary, North Eastern Council (NEC) in his office at Shillong alongwith Er. M. Kalita, SE, NEC & Committee member IBC, Meghalaya State Chapter. He discussed about North East Development. The President informed that one Seminar of IBC is scheduled to be co- organised by DoNER. The President requested the Secretary to attend the seminar and to guide the engineers working under him to become Life Member of IBC. He also requested NEC to become Institutional Member of IBC as they are member of IRC.

I. IBC Odisha State Chapter

Technical Seminar at Bhubaneswar

196thExecutive Committee Meeting and Technical Seminar on "Recent Advances in Iconic Building Projects" was jointly organised by Indian Buildings Congress, Odisha State Chapter and Works Department, Govt. of Odisha on June 8, 2025 at Hotel Lyfe, Bhubaneswar.

Technical Session-1

Chairman – Er. Ranjit Kumar Majumdar

Er. Sanjay Pant delivering the Keynote Address

The invited Keynote Speaker Er. Sanjay Pant, DDG (Standardization) BIS presented the "Sustainability in Built Environment: Understanding the Concept and Approach." He illustrated the philosophy of sustainability through a model comprising of components of buildings and external development and covering the valued tenets of accessibility/universal design, gender responsiveness, smart solutions/digital technologies, maintenance, asset and facility management. He further elaborated the continuous efforts of Bureau of Indian Standards in updating sustainability through National Building Code of India and highlighted the new provisions in the upcoming NBC-2025.

Er. Manoranjan Misra presenting the Paper

Er. Manoranjan Misra, Fmr. E-in-C-cum-Special Secy, Works Dept and Er. Arun Kumar Pandey. SE presented the paper on "Design and Construction of Cancer Care Hospital, Bargarh - A case study."

Er. Arun Kumar Pandey presenting the Paper

The paper covered the importance of the project to Western Odisha, interdisciplinary design approach with inputs of experts from AHPIC, Cuttack structure and MEP coordination and challenges of construction of a high-tech hospital in existing hospital retaining its

function.

Er. Dukhabandhu Behara, Fmr. E-In-C-cum-Sp Secy, Works Dept, and Shri Kallol Kishore Pradhan presented their paper on "Redevelopment of SCB Medical College and Hospital, Cuttack", throwing light on the iconic Medical College of the State, demand for expansion to meet the current and future tertiary and specialized health care delivery. The paper discussed the challenges of demolition of old buildings and reclamation to relieve the pressure of the congested city centre, design and construction phasing.

Ar. P. P. Karmakar presenting the Paper

Ar. P. P. Karmakar, Shri G. C. Sahu, CE (Buildings) Retd. and Ar. Anjana Giri presented their papers on "Building of District Headquarters Hospital, Deogarh on Hill Top: Challenges in Design and Construction".

Shri G. C. Sahu presenting the Paper

Their presentation highlighted the intricate multidisciplinary design issues and responsible construction practices to preserve the hill and locate components of DHH on stepped approach providing a series of access roads along the contours, reflecting an example of "demand vs sustainability".

Ar. Anjana Giri presenting the Paper

Er. R.K. Majumder summarizing the Session

The Chairman, Er. R.K. Majumder summarized the session and suggested IBC Odisha Chapter to share these high value technical presentations for publication in "Built Environment".

Technical Session-2

Chairman - Prof. Dipak Kumar Sahoo, VC, VSSUT, Burla

Er. Devender Gill, E.D., Safety DMRC presented the keynote address on "Safety in Metro Construction" (through V.C).

Shri Sunil Kumar Samantray delivering the Keynote Address

Shri Sunil Kumar Samantray, GM, TCEL, the Keynote Speaker presented the case study on "Fast Construction and Methodology for Mass Housing." He elaborated the challenges and advantages of precast large concrete panel (PLCP) technology through Mission 96 in which a fully finished 12-storey tower with 96 flats was delivered in 96 days in Mumbai.

Shri M. Murugesan (CSE, URC) and Er. Sangita Pani, SE, IDCO presented their project "Reimagine Construction through Prefabrication Technology: Case study on Design and Construction of Working Women's Hostel at Deras in Khorda district of Odisha". Their presentation covered the detailed design development process, validation through joint site visit to I-Phone factory and IIT-Madras, construction methodology and current status. It is an IDCO project intended to benefit mainly women industrial workers for safe, hygienic and economic accommodation.

Prof. M.M. Nayak, Dr. P.H. Tripathy, Dr. Gayatri Patel and Dr. Sabita Dash presented their paper on "Disaster Resilient Design of RCC Framed Buildings: A Critical Review". They presented the analysis of failures and collapses of buildings in recent earthquakes and natural disaster and put forth a strong theoretical advocacy for structural safety, including ductility detailing.

The Chairman, Prof. Dipak Kumar Sahoo summarizing the Session

The Chairman, Prof. Dipak Kumar Sahoo, summarized the session and highlighted the importance of the term "lconic" to broadly cover aesthetics, novelty, safety and sustainability in today's concepts of built-environment.

Technical Session-3

Chairman: Shri Pyari Mohan Mishra, EIC (Electricity)-cum-PCEI, Odisha

Shri Chirag Khaitan, E.D and Shri P.K. Rao, V.P, SPDCL, presented the paper "Streamlining Construction of Tall Buildings by Innovative Methodology and Technology: - SPDCL Experience". The paper highlighted prefab and modular construction, advanced formwork systems like jump form and Alu form, Building Information Modelling, Offsite manufacturing and streamlined onsite assembly adopted in their building projects in Odisha and outside. The challenges like lack of local provision, constraint of supply chain, design limitations and initial investment were elaborated with way forward.

Shri P.K. Acharya of ABCL group presented on the intrinsic design features and challenges in iconic projects of Odia University at Sakhigopal (Puri) and periphery and Area development projects undertaken by them. The meticulous façade reflecting art and technology in Odia. University was appreciated by the guests and delegates.

Technical Session-4

Chairman: Er. Lingaraj Gouda, E-in-C (Design), DoWR Odisha

Er. Pyari Mohan Mishra delivering the Keynote Address

Invited Keynote Speaker Er. Pyari Mohan Mishra presented his address entitled "Advancing Building Energy Efficiency, an Overview of ECBC and its Implementation". He explained the importance and relevance of ECBC Code 2022. Er. Sai Om B. Shankar, SE made a detailed presentation on the components of the (i) building envelope design, and (ii) electro-mechanical constituents in buildings and explained different clauses of ECBC, efforts made by Energy Department in sensitisation and enforcement.

Er. Aswini Kumar Biswal presenting the Paper

Er. Aswini Kumar Biswal, former EIC, Works Department and current CGM (Civil), IDCO, presented the "State of Art project, Birsa Munda International Hockey Stadium: An Engineering Marvel". He explained the project background, site selection, structural design and foundation challenges, procurement issues including mechanical components soured from Nagpur and Astroturf from abroad, pandemic-related workforce shortage etc. against set date of completion to host the World Cup Hockey. This was a classic example of coordinated project management of top-to-bottom involvement driven by the sense of urgency to reach the goal.

Er. Lingaraj Gouda, summarizing the Session

The Chairman, Er. Lingaraj Gouda summarised the session highlighting the essential components of (a) energy efficiency and (b) time control in projects.

Valedictory Session

Er. B.C. Tripathy, Chairman, IBC Odisha Chapter welcomed the guests and delegates.

Er. Dharmananda Sadangi, Addressing

Er. Dharmananda Sadangi, Fmr. DG, MORTH, and Dr. B.N. Mohapatra, Fmr. DG, NCCBM graced the function as the Guests of Honour and spoke from their past experience on the importance of capacity building, technology dissemination, interchange and complimented Indian Building Congress for the efforts in this direction.

Dr. B.N. Mohapatra, Addressing

Smt. Sasmita Nayak felicitated by Shri Ashok Basa

The first woman Chief Engineer of Odisha, Smt. Sasmita Nayak was felicitated by Shri Ashok Basa, Past

President IRC and current V.P WFEO, on behalf of IBC. Members of the Technical Committee and sponsors were also felicitated.

Er. Manoranjan Misra summarizing the Session

Er. Manoranjan Misra, former EIC-cum-Spl. Secy, Works Dept, and current GC Member of IBC, summarised the proceedings and read out the recommendations of the National Seminar.

Shri Trinath Behera, Hon Secretary, IBC Odisha Chapter in his vote of thanks sought the continued support, motivation and mentoring of Sr. Engineers and Professionals in the State and Country.

Recommendations from the National Seminar held on 8th June, 2025

Sustainable Construction Practices

Implementing energy-efficient designs, green building materials, and renewable energy sources reduces environmental impact while ensuring long-term cost savings. Construction focuses on minimizing waste, optimizing energy consumption and creating carbon-neutral structures. Water conservation and passive cooling techniques further enhance sustainability.

Resilient Infrastructure Development

Lifecycle-based procurement processes, performance based Contracts ensure durability, cost-efficiency, and proactive maintenance, addressing long-term performance rather than short-term gains. Collaboration between governments, private developers and research institutions is essential to integrate smart materials, predictive analytics, and Al-driven monitoring systems for resilience.

BIM and Al Integration

Building Information Modeling (BIM) revolutionizes construction by reducing design clashes, optimizing resource allocation and enhancing real-time collaboration across project stakeholders. Widespread adoption of BIM and Al will redefine the efficiency and accuracy of large-scale construction.

Architecture & Landscape Harmony

By merging architecture with nature, cities can mitigate urban heat islands, improve air quality and enhance the well-being of occupants. A holistic approach to construction promotes cultural identity, environmental preservation, and liveable spaces.

Mass Housing & Pre-Engineered Construction

Scaling up pre-fabricated and pre-engineered volumetric construction is key to addressing housing shortages efficiently. Governments should incentivize prefabrication, ensuring regulatory frameworks support innovation in material technology and modern construction techniques for affordable housing.

Enhanced Safety Measures

Training programs should embed behavioural safety standards that emphasize accountability at all levels of the construction hierarchy. Poor safety practices signal negligence, whereas a robust safety framework fosters high-quality craftsmanship, operational efficiency and long-term project reliability. Safety must be viewed as a fundamental pillar of project excellence.

Lessons from Birsa Munda International Hockev Stadium

The success of this stadium highlights best practices in accelerated construction, including multi-shift operations, proactive workforce planning and adaptive engineering solutions. Such case studies must be recognized to promote efficient infrastructure development for future mega-projects.

J. IBC Chhattisgarh State Chapter

i) World Environment Day

Under the joint auspices of the IBC Chhattisgarh State Chapter, the Institution of Water & Environment (India) and the Chhattisgarh Groundwater Management Committee, a special address and seminar on the theme of Environmental Conservation was organized on 5th June 2025 between 3:00 PM to 5:00 PM at the Alumni Hall, NIT Raipur.

The Chief Guest, Er. Salil Rai Shrivastava, National Vice President of IBC said that the theme of the year 2025 is

"Ending Plastic Pollution". The plastic pollution, which poses a serious threat to ecosystems and human health globally.

The Keynote Speaker Dr. Debashis Sanyal, Chairman of the IBC Chhattisgarh State Chapter, Raipur presented a presentation on "Low Carbon Construction Technologies & Energy Efficiency - Advancing Sustainability in the Built Environment" and explained about the World Environment Day. It unites millions of people across over 150 countries to address critical environmental issues and promote sustainable development.

ii) Yoga Day

To mark the International Yoga Day, members of the IBC Chhattisgarh State Chapter, Raipur assembled at NIT Campus, Raipur, on 21st June 2025.

Yoga Day Celebrated

The session was guided by esteemed IBC member Shri Jitendra Upadhyay who performed and guided a series of yogic practices promoting the harmony of body, mind, and spirit. His insightful guidance helped all participants feel rejuvenated from within.

K. IBC Telangana State Chapter

i) Environment Day

World Environment Day Celebrated

Environment Day Celebrated by IBC Telangana State Chapter.

L. IBC Arunachal Pradesh State Chapter

i) World Environment Day

World Environment Day Celebrated

The Arunachal Pradesh State Chapter of IBC celebrated of World Environment Day on 5th June, 2025 with a programme held at its office in Mowb-II, Itanagar.

Speaking on the occasion, IBC-AP Chairman Dr. Toli Bassar expressed optimism that increasing awareness about global warming was a positive trend, reflecting people's growing desire to live in cleaner, greener surroundings.

Public Works Department Chief Engineer (CSQ) Tanyok Taga and other key resource persons also participated in the event, engaging in discussions on the critical role of forests and environmental sustainability.

M. IBC Nagaland State Chapter

i) World Environment Day

The IBC Nagaland State Chapter, commemorated World Environment Day on 5th June, 2025 at Nagaland, PWD Conference Room, Kohima. The Event focused on the theme, "Ending Global Plastic Pollution", underscoring the urgent need for collective action to combat plastic pollution and foster sustainable practices.

The programme was chaired by Er. T Nungsangtemjen, SE, PWD(H). Er. P.L. Imna, Engineer-in-Chief, NPWD & Chairman IBC Nagaland Chapter highlighted the importance of World Environment Day and encouraged all stakeholders to contribute actively towards environmental conservation, especially in reducing plastic waste.

A key highlight of the event was a Power-point representation by Er. Rebecca, SDO NCCD, PWD (H), titled "Ending Global Plastic Pollution". The presentation provided insightful data and visuals on the sources and impact of plastic pollution, current challenges and actionable solutions based on Naga's society scenario. The programme concluded with a vote of thanks delivered by Er. Neilabeiro, SE, PWD(R&B).

National News

Breathe

Project by :	Between line	Year Built :	2018-2022
Project Type :	Residential	Site Area :	8000 Sqft
Location :	Bangalore	Built up :	2400 Sqft

Most of the material for construction of the project was taken from in and around the immediate site. Conventional SSM construction at the foundation was replaced with Rammed earth bed and Random rubble masonry unearthed from the site belly.

The concept of energy-efficiency extends to the inside, much like the rays of light through the perforations on the curved Jaali wall wherein the perforations also invite birds to nest in them —a living, breathing skin. The Jaali aids in ventilation with micro Chajjas made with waste Granite trims from the quarry laid course to course adapting to the overhang-less edges of the house, and not only protecting the earth walls from weathering but also shading it from the western sun.

The inner courtyard enclosed on top by Ferroconcrete fins brings in a dynamic shadow play through the day. The system of courtyards provides thermal comfort. Athangudi tiles, handmade from the Chettinadu region was the farthest from which a material found its way into Breathe.

Athangudi in available patterns were taken and a gradient was created. Additionally, the muted earth walls were contrasted by the vibrant palette of the tiles, creating a specific ambiance to the house. Upcycled wood in the staircase and window frames, reused tiles in the bathroom and decorative imprints of local leaves on concrete surfaces—a residence that takes from and gives to its surroundings.

Most importantly, the surrounding rain garden helps make water become one with the land creating a small ecosystem. The swale and retention pond - source, recharge and reuse water, supported by native plant species that create a lush habitat for the birds and animals that visit.

A wide range of native plant species was identified and planted around the swale and the rest of the plot landscaped based on privacy, land marshiness, seasonal response and density. By the completion of the project, the land attracted a lot more fauna than at the outset, achieving the goal of a thriving ecosystem.

World's Highest Railway Arch Bridge - Chenab Bridge

The newly constructed and inaugurated the 359-metre-high Chenab Bridge by Hon'ble Prime Minister of India Shri Narendra Modi, is the world's highest railway arch bridge.

Inauguration of Chenab Bridge by Hon'ble Prime Minister Shri Narendra Modi

View of Chenab Bridge

Salient features of the Iconic Bridge

- Chenab Bridge, the highest railway arch bridge in the World, soars 359 metres above the Chenab riverbed, its central arch spanning 467 metres.
- 29,880 Tonnes of structural steel went into its construction.

- Built to withstand earthquake forces of Zone V and wind speeds up to 266 km/hr and to last for 120 years.

An engineering feat

The Himalayas are young and the geologically unstable Shivalik Hills and Pir Panjal mountains lie in the seismically most active Zones IV and V. The terrain is difficult and sees heavy snow in winter and presented serious challenges in the construction of bridges and tunnels.

Among the several firsts of this remarkable achievement of railway engineering are the world's highest railway arch bridge, its arch rising 359 metres above the bed of the Chenab in Reasi district; the first cable-stayed bridge of the Railways on the Anjii Khad, also in Reasi district; and the countrys longest transport tunnel, 12.77 km long, in Ramban district.

Madhavi Latha G, a professor of civil engineering at Indian Institute of Science (IISc), Bengaluru worked on the project for 17 years from 2005 to 2022 and shared the information about the bridge as reported in Indian Express dated 17/06/2025.

The Chenab Railway Bridge is a steel-and-concrete structure extending 1,315m across the river gorge. It consists of a 530-metre-long approach bridge and a 785 metre-long deck arch bridge (the part on which vehicles ply). The steel structure can endure extreme weather conditions, including temperatures as low as -20 degrees Celsius. It can also withstand wind speed of 220 km/hr, which is equivalent to winds associated with a super cyclone.

The region falls under seismic zone IV and the proposed bridge had to have the ability to withstand earthquakes of magnitude up to 8 on the Richter scale. Young mountains with rocky and steep slopes, fractures and joints meant that the civil engineers had to first prepare the ground so that the strong foundation could be laid.

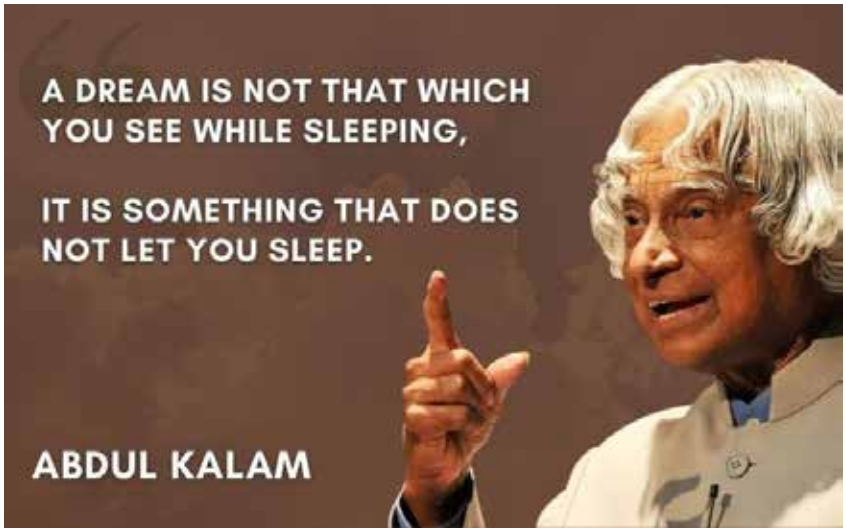
The region is geotechnically and geologically challenging and close to the boundary where the Himalayas started forming.

As the joints were found dipping towards the valley, the possibility of potential rock slides and slope slides were high, so her design was to fix these from sliding.

"Any slope standing against gravity will always be vulnerable to slide off. This is the major instability in such terrains. Mountain formation is an outcome of tectonic activities and since these mountains are still young and continuously evolving, there are inherent discontinuities, joints, separations," she said, describing the site where the bridge now stands.

Stitching together loose rock fragments, fixing slopes into the deep Chenab valley and stabilizing the ground in a highly active seismic zone to lay the bridge's foundation was the task at her hand. She was primarily responsible for designing protection for the bridge's foundations.

"To stabilize the slope, cement grouts were used, so that loose rock fragments, if any, could be bonded together. In addition steel rock anchors were used to stitch all these joints and connect these fragments." She explained.



IBC Welcomes the following New Individual, Institutional & Student Members enrolled during to 04/04/2025 to 04/07/2025

Individual Members:

S.No.	*M. No.*	*Name*	*Qualification*	*Designation*	*Department*	*City*	*State*
1.	ML-10205	Shri Ashok Shamrao Gaikwad	B.E. (Civil), M.E. Constn. Mgt., MBA (HR), LL.B	Dy. Engineer	Maharashtra PWD	MUMBAI	Maharashtra
2.	ML-10206	Shri Naveenkumar Totaganti	M.Tech.	Asst. Executive Engineer	Karnataka PWD	BANGALORE	Karnataka
3.	ML-10207	Shri Sanjay Sabharwal	B.Tech. (Civil)	Executive Engineer	Haryana PWD (B&R)	SIRSA	Haryana
4.	ML-10208	Ms. N. Asha Jyothi	B.E. (Civil)	Executive Engineer	Karnataka PWD	BANGALORE	Karnataka
5.	ML-10209	Shri Maithra P.T.	B.E.	Assistant Engineer	Karnataka PWD	BANGALORE	Karnataka
6.	ML-10210	Shri M. Manjunath	B.E. (Civil)	Assistant Engineer	Karnataka PWD	BANGALORE	Karnataka
7.	ML-10211	Shri Rudresh Pattanashetti	B.E.	Billing Engineer	KATCON Consultants Belagavi		Karnataka
8.	ML-10212	Ms.Komala M	B.E. (Civil)	Assistant Engineer	Karnataka PWD	RAMANAGAR	Karnataka
9.	ML-10213	Shri Udaya Bhasker Bandari	B.Tech., M.Sc., LL.B	Fmr. Dy.Executive Engineer	Roads & Buildings Deptt.	SECUNDERABAD	Telangana
10.	ML-10214	Shri Dinkar Sharma	M.E. (Civil Strct.)	Superintending Engineer (Civil)	HP PWD	UNA	Himachal Pradesh
11.	ML-10215	Shri Jatin Singh Chundawat	B.E. (Civil)	Executive Engineer	MP PWD	UJJAIN	Madhya Pradesh
12.	ML-10216	Shri Raj Priyadarshan	M.Tech.	Civil Engineer	AIIMS	NEW DELHI	Delhi
13.	ML-10217	Shri SafikulIslam	M.Sc., AMIE (Mech.), Chartered Engineer	Fmr. Sr. Executive Engineer	Damodar Valley Corporation	DURGAPUR	West Bengal
14.	ML-10218	Shri Ronak Jain	M.Sc (Strct. Design & Constn.)	Engineer	Struct Bombay Consultant	PAREL	Maharashtra
15.	ML-10219	Shri Shantilal Hastimal Jain	M.E. (Civil)	Proprietor	Struct Bombay Consultant	PAREL	Maharashtra
16.	ML-10220	Shri Pardeep Sindhu	M.Tech. (Strct.)	Executive Engineer	Haryana PWD (B&R)	GURGAON	Haryana
17.	ML-10221	Shri Gulzar Ahmad Mir	M.Tech. (Civil Strct.)	Fmr. Assistant Executive Engineer	J&K PWD	SRINAGAR	J & K
18.	ML-10222	Shri Ramesh Cheekalaparvi	M.Tech. (Strct. Engg.)	Proprietor	M/s RK Engineers	MIYAPUR	Telangana
19.	ML-10223	Shri Vijaya Kumar T	M.Tech. (Civil)	Vice President & Head CMPC	L&T Construction	CHENNAI	Tamil Nadu
20.	ML-10224	Shri Sita RamTomar	AMIE, B.Tech.	Executive Engineer (Elect.)	HP PWD	SHIMLA	Himachal Pradesh
21.	ML-10225	Shri N. Birjit	B.E. (Elect.)	General Manager (Project & Plg.)	MSPDCL	IMPHAL	Manipur
22.	ML-10226	Shri H.S.Manjunath	B.E.	Contractor	S&S Innovation	BENGALURU	Karnataka
23.	ML-10227	Shri Hari Om Tiwari	AMICE	Sr. Assistant Engineer (Civil)	NTPC Ltd.	ANGUL	Odisha
24.	ML-10228	Shri Navneet Pandey	B.E. (Civil)	Executive Engineer	Uttarakhand PWD	DEHRADUN	Uttarakhand
25.	ML-10229	Shri Dhanada Kanta Mishra	Ph.D	Managing Director	DKM Consult Pvt. Ltd.	BHUBANESWAR	Odisha
26.	ML-10230	Shri Thingbaijam Jeevan Singh	Graduate	Builder Contractor (1st Class) PWD	Water Resource & M U	IMPHAL EAST	Manipur
27.	ML-10231	Shri Raja Prabhakar Kacharla	AMIE (Civil)	Consulting Engineer	RP Associates	HANAMKONDA	Telangana

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
28.	ML-10232	Shri Sumit Ashok Kothari	B.E.(Civil), MBA (Finance)	Govt. PWD Contractor	M/s A.M. Kothari	AKOLA	Maharashtra
29.	ML-10233	Shri Arup Kumar Chakraborty	B.E. (Civil)	Executive Engineer	PWD & NH Deptt.		Assam
30.	ML-10234	Shri Rishiraj Verma	B.Tech. (Civil)	Project Manager	Bridul	DEHRADUN	Uttarakhand
31.	ML-10235	Shri Prasad Patil	B.E. (Civil)	Executive Engineer	Maharashtra PWD	AKOLA	Maharashtra
32.	ML-10236	Shri Thaiu Mog	B.E. (Civil)	Junior Engineer	PWD (National Highways)		Tripura (South)
33.	ML-10237	Shri Madhu Mohan Agrawal	M.E. (Civil) Structural Engg.	Former DGM (Civil)	NMDC Ltd.	RAIPUR	Chhattisgarh
34.	ML-10238	Shri Kripan Ayudh Roy	B.E. (Civil), M.E (PH)	Former Executive Engineer	Tripura PWD (DWS)	KOLKATA	West Bengal
35.	ML-10239	Shri Parveen Kumar Bali	B.E. (Civil)	Former Executive Engineer	Economic Reconstruction Agency	JAMMU	J & K
36.	ML-10240	Shri Sunil Seth (FIE)	B.E. (Civil), PGDCA	Executive Engineer	Jal Shakti Deptt.UT of J&K	JAMMU	J & K
37.	ML-10241	Shri Kewal Krishan Saini	Diploma in Civil Engg.	Director	M/s Ishant Calibration & Material Hi-Tech.	JAMMU	J & K
38.	ML-10242	Dr. (Ms.)Kavita Murugkar	Ph.D, M.A., B.Arch.	Principal	Bharati Vidyapeeth College of Architecture	PUNE	Maharashtra
39.	ML-10243	Shri Rafiq Ahmad Rafiq	B.E. (Civil), Master of Plg. URP (Urban)	Former Chief Engineer	PWD (Roads & Buildings)	SRINAGAR	J & K
40.	ML-10244	Shri Jagbeer Singh	B.E. (Civil), M.Tech.	Superintending Engineer	Haryana PWD (B&R)	PUNCHKULA	Haryana
41.	ML-10245	Shri Dharmananda Sarangi	B.Sc (Engg.) Civil, M.Sc. (Engg.) Strctural Engg.	Director General & Special Secretary	MoRTH	BHUBANESWAR	Odisha
42.	ML-10246	Shri Vaka Venkata Krishna Reddy	M.Tech. (Strct. Engg.)	Chief Consultant	Contanental Designers	HYDERABAD	Telangana
43.	ML-10247	Shri Satya Prakash	B.E. (Civil), M.Tech. (Civil)	Former E-in-C	UP PWD	NOIDA	Uttar Pradesh
44.	ML-10248	Shri S. Kamesh	B.Tech.	Overseer	Puducherry PWD	VILLIANUR	Pudhcherry
45.	ML-10249	Shri Vidjea Nehru Velayutham	B.E.	Former Member Secretary	Puducherry Planning Authority		Puducherry
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48.	ML-10252	Shri Shivakumar G.	B.E., MBA	Former Executive Engineer	Tamil Nadu PWD		Tamil Nadu
49.	ML-10253	Shri Harsh Kiran Mehta	B.Tech.(Civil), MBA (Mngt.)	Sole Proprietor	Harsh Kr Mehta	KUTCH	Gujarat
50.	ML-10254	Shri Sandeep Mathur	B.E. (Civil)	Consultant-Ready Mix Concrete	Ask Infra Consultants	AHMEDABAD	Gujarat
51.	ML-10255	Shri Suneel Palla	M.Tech.	Project Manager	VPR Constructions	HYDERABAD	Telangana
52.	ML-10256	Shri D. Sridhar Babu	B.E. (Civil), M.E. (Strct.)	Chief Projects Coordinator	Engineering Staff College of India	HYDERABAD	Telangana
53.	ML-10257	Shri Siddharth R. Desai	B.E. (Civil)	Proprietor	Sawan Consultants	AHMEDABAD	Gujarat
54.	ML-10258	Shri Pranav Vinaykant Parikh	B.E. (Civil)	Consulting Engineer	Pranav Parikh & Associates	AHMEDABAD	Gujarat

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
55.	ML-10259	Shri Hmingsanga Lal	B.Tech. (Civil)	Principal Engineer (Design & Construction)	H S Design & Construction		Mizoram
56.	ML-10260	Shri Pakki Kandal Rao	B.Tech (Civil), MBA-Finance	Vice President	SPD Constructions Limited	BHUBANESWAR	Odisha
57.	ML-10261	Shri Anjanaya Lamani	B.E. (Civil)	Assistant Engineer	Karnataka PWD	BAGALKOTE	Karnataka
58.	ML-10262	Shri Hiteshkumar Mohanbhai Patel	M.E. (Civil) Structural	Deputy Executive Engineer	Centgral Designs Organisation, Narmada Water Resources Water Supply & Kalpsar Deptt.	GANDHINAGAR	Gujarat
59.	ML-10263	Shri S.Gowthaman	B.Tech. (Civil)	Design Engineer	Lavinsree Engineering Design Consultants		Pondicherry
60.	ML-10264	Shri G.Manjunathan	B.E. (Civil)	Executive Engineer & ADO	Tamil Nadu Housing Board	CHENNAI	Tamil Nadu
61.	ML-10265	Shri S.Karikalan	M.Tech. (Strct.), MBA	Superintending Engineer	Tamil Nadu Housing Board	CHENNAI	Tamil Nadu
62.	ML-10266	Shri Saurabh Pandey	B.Arch.	Manager-Architecture	National High Speed Rail Corporation Limited	NEW DELHI	Delhi
63.	ML-10267	Shri Naman Mirajkar	B.Arch, M.Arch, Ph.D in Arch.	Senior Manager (Architecture)	National High Speed Rail Corporation Limited	NEW DELHI	Delhi
64.	ML-10268	Shri Saudnya Vijay Mane	B.Arch.	Sr. Architect (Associates)	GM Arch. Pvt. Ltd.	WEST MUMBAI	Maharashtra
65.	ML-10269	Shri Bikash Chandra Behera	B.E.	Proprietor	Aquaproof Engineering	CUTTACK	Odisha
66.	ML-10270	Shri Biranchi Narayan Arharya	M.Tech.	Director	Dasarathi Naik & Engineers Pvt. Ltd.	CUTTACK	Odisha
67.	ML-10271	Shri Jayaraja R.Acharya	B.E. (Civil)	Assistant Engineer	Karnataka PWD	BENGALURU	Karnataka
68.	ML-10272	Shri V. Shreenath	B.E. (Civil)	Asst. Executive Engineer	Karnataka PWD	MALLESHWARAM	Karnataka
69.	ML-10273	Shri Sidhant Das	B.Tech. (Civil)	Dy. Manager (Civil)	IDCO	BHUBANESWAR	Odisha
70.	ML-10274	Shri N. Harshavardhan	B.E. (Civil)	Assistant Engineer	Karnataka PWD	BENGALURU	Karnataka
71.	ML-10275	Ms. Saroja Patil	B.E. (Civil)	Assistant Executive Engineer	Karnataka PWD	BANGALORE	Karnataka
72.	ML-10276	Shri Jyotiprakash Jitendriya	B.Tech.	Divisional Head	IDCO	PURI	Odisha
73.	ML-10277	Shri Pramodh N.	B.E. (Civil)	Assistant Engineer	Karnataka PWD		Karnataka
74.	ML-10278	Shri Rakshith G.R.	B.E. (Civil), M.Tech. (Strct.)	Assistant Engineer	Karnataka PWD	BENGALURU	Karnataka
75.	ML-10279	Shri K.Murugan	Diploma in Civil Engg.	Builder	Indian Builders		Pondicherry
76.	ML-10280	Shri Basavaraj Shivapooji	B.E. (Civil)			BANGALORE	Karnataka
77.	ML-10281	Shri Ketan Ashok More	B.Tech. (Civil)	Sub Divisional Engineer	Maharashtra PWD	JALGAON	Maharashtra
78.	ML-10282	Shri Umang Pravinbhai Raval	M.E. (Env.), B.E. (Civil), LL.B	Director	Aditya Infrabuildcon Pvt. Ltd.	AHMEDABAD	Gujarat

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
79.	ML-10283	Shri Maulik Pravinchandra Choksi	B.E. (Civil)	Proprietor	Shreejee Construction & Consultants	AHMEDABAD	Gujarat
80.	ML-10284	Shri Kesari Das Sangram	M.Tech. Strct Civil Engg.	Consultant		NEW DELHI	Delhi
81.	ML-10285	Shri Ajit Kumar Mishra	B.Tech. (Civil Engg.)	Consultant	Concraft Consortium	BHUBANESWAR	Odisha
82.	ML-10286	Shri Nilanshu Kumar Mandal	B.Tech.(Elect. Engg.)	Assistant Executive Engineer (Elect.)	R&B Works Department	KHORDHA	Odisha
83.	ML-10287	Shri Biswajit Jena	M.Tech.(Stct. Engg.)	Structural & Road Safety Consultant	Confiance Infratech Management Pvt. Ltd.	BHUBANESWAR	Odisha
84.	ML-10288	Shri Sibanarayan Mishra	B.Tech.	Executive Engineer (Civil)	Odisha PWD (Works Deptt.)	NAYAGARH	Odisha
85.	ML-10289	Shri Sachin Kumar Sahoo	B.Tech.(Civil)	Superintending Engineer	Odisha PWD Odisha PWD	BHUBANESWAR	Odisha
86.	ML-10290	Shri Manoj Kumar Mahananda	B.Tech. (Civil)	Chief Construction Engineer	Central (R&B) Circle	BHUBANESWAR	Odisha
87.	ML-10291	Shri Panda Jagajjban	B.Tech. (Civil)	Assistant Engineer	Odisha PWD (R&B)	JAJPUR	Odisha
88.	ML-10292	Shri Padma Charan Pradhan	B.Tech. (Civil)	Executive Engineer	Odisha PWD	BHUBANESWAR	Odisha
89.	ML-10293	Shri Narendra Kumar Ghadai	M.Tech. (CE &M)	Superintending Engineer	Odisha Works Deptt.	JAJPUR	Odisha
90.	ML-10294	Shri Srikanta Samal	M.Tech. (Strct.)	Addl. Chief Engineer	Works Department	BHUBANESWAR	Odisha
91.	ML-10295	Dr. Kumuda Chandra Gouda	M.Tech., Ph.D	Sr. Divisional Engineer	East Coast Railway	RAILKUNJ	Odisha
92.	ML-10296	Shri Ranjit Dixit	Diploma in Civil Engg.	Sr. CGM (Contracts & Planning)	SPD Constructions Limited	CUTTACK	Odisha
93.	ML-10297	Shri Swain Satyanarayan	M.Tech. (Strct.), Post Graduate	Consultant	Concraft Consortium	BHUBANESWAR	Odisha
94.	ML-10298	Shri Biranchi Narayan Panda	M.Tech, Geo Technical Engg.	Addl. Chief Engineer	Odisha PWD Odisha PWD	BHUBANESWAR	Odisha
95.	ML-10299	Shri Pravasini Behera	M.Tech.	Superintending Engineer	IDCOIDCO	BHUBANESWAR	Odisha
96.	ML-10300	Shri Pravash Kumar Majhi	B.E. (Civil)	Addl. Chief Engineer	Odisha Works Department	JAJPUR	Odisha
97.	ML-10301	Shri Alok Kumar Naik	B.Tech.(Civil Engg.)	Superintending Engineer	Odisha Works Department		Odisha
98.	ML-10302	Ms. Sarita Pradhan	B.Tech.	Superintending Engineer	Odisha PWD Odisha PWD	BHUBANESWAR	Odisha
99.	ML-10303	Ms. Minakshirani Rout	M.Tech.	Superintending Engineer	IDCOIDCO	BHUBANESWAR	Odisha
100.	ML-10304	Ms. Alaka Manjari Balita	B.E. (Civil)	Addl. Chief Engineer	Rural Works Department	BHUBANESWAR	Odisha
101.	ML-10305	Ms.Lopamudra Mohanty	B.Tech., M.Tech. (Strct.)	Superintending Engineer	Odisha PWD Odisha PWD	BHUBANESWAR	Odisha
102.	ML-10306	Ms.Jayashree Behera	M.Tech.	Superintending Engineer	Odisha Works Department	BHUBANESWAR	Odisha
103.	ML-10307	Shr iLingaraj Gouda	M.Sc. (Strct. Engg.)	Engineer-in-Chief (Plg.& Design)	Water Resources Water Resources	BHUBANESWAR	Odisha
104.	ML-10308	Shri Soumyendu Shankar Ray	M.Arch.	Director General	KIIT School of Architecture	BHUBANESWAR	Odisha
105.	ML-10309	Ms. Lumchungla T.Sangtam	B.Tech.	Sub Divisional Officer	Nagaland PWD	KOHIMA	Nagaland

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
106.	ML-10310	Shri Rumit H. Parikh	B.E. (Civil)	Proprietor	Yihan Techno Solutions	AHMEDABAD	Gujarat
107.	ML-10311	Shri Shailesh Prasad Goel	B.Tech.	Proprietor	Shailesh Prasad Goel	TITILAGARH	Odisha
108.	ML-10312	Shri Sanjay Kumar	B.Tech.(Elect.)	SDE (Elect.)	Dada Lakhmi Chand State University of Performing & Visual Arts	ROHTAK	Haryana
109.	ML-10313	Shri Sanjay Kumar Sahoo	B.Tech. (Civil)	Assistant Engineer	Rural Works Department	BHUBANESWAR	Odisha
110.	ML-10314	Shri Sanjit Kumar Acharya	Mechanical Engineering	Director	Dynamic Engineering & Consultancy Services	BHUBANESWAR	Odisha
111.	ML-10315	Shri Chamkaur Singh Passi	Diploma in Civil	Proprietor	Passi Constructions	LUDHIANA	Punjab
112.	ML-10316	Shri Vibhor Parikh	B.Com	Partner	Shreenathji Infra Equipments	AHMEDABAD	Gujarat
113.	ML-10317	Shri Parthasarathi Bhowmik	B.E. (Civil)	Assistant Engineer, I.E.S. GR-III	Tripura PWD	AGARTALA	Tripura
114.	ML-10318	Shri K. Mohan	M.E. (Strct.)	Former Civil Engineer	Karnataka PWD	BENGALURU	Karnataka
115.	ML-10319	Shri Devinder Singh Ranta	AMIE (Elect.)	Engineer & Proprietor	M/s D.S. Ranta	SHIMLA	Himachal Pradesh
116.	ML-10320	Ms. Tanuja Mehta	M.Tech.	Assistant Engineer	Uttar Pradesh PWD	BAREILLY	Uttar Pradesh
117.	ML-10321	Ms. Emili Bhattacharjee	B.E. (Civil), M.Tech. (Strct.)	Junior Engineer	Tripura PWD	DHARMANAGAR	Tripura (North)
118.	ML-10322	Shri B. Peethambaraswamy	DCE, B.Tech.	Former Assistant Executive Engineer	Karnataka PWD	BENGALURU	Karnataka
119.	ML-10323	Shri Nirad Sarma	B.E. (Civil)	Former Superintending Engineer	Tripura PWD	AGARTALA	Tripura
120.	ML-10324	Shri Projjwal Kanti Purkayastha	B.E. (Civil), M.Tech. (Env.)	Former Superintending Engineer (Civil)	Tripura PWD	AGARTALA	Tripura
121.	ML-10325	Shri Ratan Chowdhury	B.E. (Civil)	Superintending Engineer	Tripura PWD		Tripura
122.	ML-10326	Ms. Shilpi Rani Das	B.E. (Civil)	Executive Engineer	Tripura PWD	AGARTALA	Tripura
123.	ML-10327	Shri Litan Debnath	M.Tech. (Trans.)	Executive Engineer	Tripura PWD (R&B)		Tripura
124.	ML-10328	Shri Bijan Sutradhar	B.E. (Civil)	Executive Engineer	R D Department	AGARTALA	Tripura
125.	ML-10329	Shri Bijan Debbarma	B.E. (Civil)	Executive Engineer	PWD (DWS)	AGARTALA	Tripura
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129.	ML-10333	Shri Nirmal Sarkar	Diploma in Civil	Executive Engineer	Tripura PWD	AGARTALA	Tripura
130.	ML-10334	Ms. V. Vasugi	Ph.D	Professor	VIT Chennai	CHENNAI	Tamil Nadu

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
131.	ML-10335	Shri Durga Charan Jamalia	B.E. (Civil)	Superintending Engineer	R.D. Department		Tripura
132.	ML-10336	Shri Himangshu Majumder	B.E. (Civil)	Executive Engineer	Tripura PWD (R&B)	AGARTALA	Tripura
133.	ML-10337	Shri Devinder Kumar	AMIE (Civil)	Proprietor/Director	Devinder Architect/Valuer	PATIALA	Punjab
134.	ML-10338	Shri Dinesh Mohan Gupta	AMIE, MBA	Executive Engineer	Uttarakhand PWD	RISHIKESH	Uttarakhand
135.	ML-10339	Shri M.S. Khan	Post Graduate, Masters in Regional Planning	Former Chief Town & Country Planner	Uttar Pradesh TCPO	JHANAI	Uttar Pradesh
136.	ML-10340	Shri Arun Kumar Pandey	B.E.	Superintending Engineer	Odisha PWD	BHUBANESWAR	Odisha
137.	ML-10341	Shri Rakeshkumar C. Joshi	B.E. (Civil)	Consulting Engineer & Regd. Valuer	Bhumi Consultant	ARVALLI	Gujarat
138.	ML-10342	Shri K. Harun Krishna	B.Tech. (Civil)	Assistant Executive Engineer	R&B Department	HYDERABAD	Telangana
139.	ML-10343	Shri Hari Chander Manthari	B.E. (Civil)	Dy. Executive Engineer	R&B Department	KARIMNAGAR	Telangana
140.	ML-10344	Shri Samuel Lankapalli	B.Tech., M.Sc Env.	Executive Engineer (R&B)	R&B Department		Telangana
141.	ML-10345	Shri Ashok Kumar Sahoo	M.Tech. (Env. Engg.)	Principal Consultant-Infrastructure & Energy	M/s SMEC India Private Limited	AGARTALA	Tripura
142.	ML-10346	Shri R. Suresh	B.E. (Civil)	Executive Engineer	R&B Department	BEGUMPET	Telangana
143.	ML-10347	Shri Biplab Kanti Ghosh	Diploma in Civil Engg.	Manager (C), Gr-A	TSECL	AGARTALA	Tripura
144.	ML-10348	Shri Debabrata Debbarma	B.E. (Civil)	Executive Engineer	Tripura PWD (R&B)	AGARTALA	Tripura
145.	ML-10349	Shri Lakshman Sarkar	B.E. (Civil)	Executive Engineer	R.D. Department	AGARTALA	Tripura
146.	ML-10350	Shri Harilal Debnath	Diploma in Civil Engg.	Executive Engineer	R.D. Department	AGARTALA	Tripura (West)

Institutional Members:

S.No.	M. No.	Name	Qualification	Designation	Department	City	State
1	IM-90223	Shri Chirag Khaitan	B.Sc in Banking & Finance-LSE	Director	SPD Constructions Limited	BHUBANESWAR	Odisha
2	IM-90224	Shri Subhendu Bhattacharya	Graduate Engineer	Director	Skylim Technica (P) Ltd.	BHUBANESWAR	Odisha
3	IM-90225	Shri Aneesh Mishra	MBA	Associate President	Shyam Metalics & Energy Limited	KOLKATA	West Bengal
4	IM-90226	Shri Guru Charan Das	Civil Engineering	Managing Director	Water Corporation of Odisha	BHUBANESWAR	Odisha

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