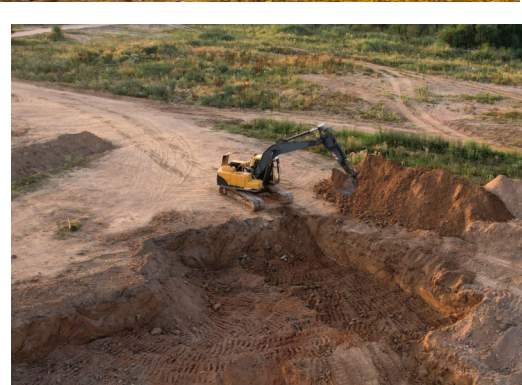
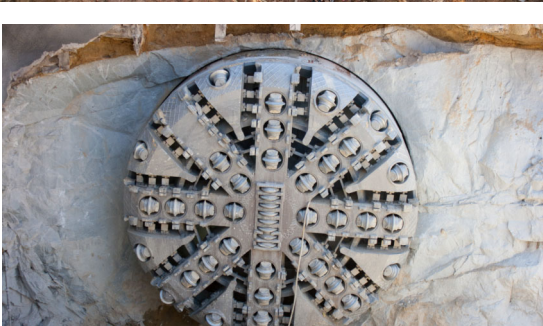


2nd Annual Conference

TUNNEL CONSTRUCTION - NORTH INDIA OPPORTUNITIES

Focus on Northern Region Projects

November 29-30, 2023 | Le Meridien, New Delhi



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TUNNEL CONSTRUCTION - NORTH INDIA OPPORTUNITIES

Mission

- Tunnel construction activity in India has seen significant growth in the past few years owing to development across key infrastructure sectors, including urban rail, roads and highways, hydropower and water and sewerage.
- The introduction of initiatives like the Pradhan Mantri Krishi Sinchayee Yojana, the Interlinking of Rivers Programme and the Jawaharlal Nehru National Urban Renewal Initiative for the exploitation of water resources has given a fillip to tunnel construction for water supply and sewerage. Similarly, increasing development in the metro rail sector has spurred tunnelling activity. Some of the ongoing tunnel projects in the northern region are tunnels under Jammu-Udhampur-Katra-Qazigund-Baramulla Railway Line Project, the Sela tunnel, tunnels under Delhi Metro Rail project, Mumbai Sewerage Disposal Project, etc.
- Conventional techniques such as the drill and blast method (DBM) continue to play a dominant role in the execution of tunnel construction projects. Techniques such as tunnelling boring machines (TBMs) and the New Austrian Tunnelling Method (NATM) are also being increasingly adopted. Lately, contractors are also exploring modern techniques such as sequential excavation and ground freezing. Moreover, innovative materials like fibre bolts, lining stress controllers, geosynthetics and steel anchors are being used.
- Modern tunnels are also being equipped with advanced features including video surveillance, integrated tunnel control systems, entrance detection control, wireless communication systems, and electrical fire signalling systems.
- That said, the tunnelling sector still faces challenges of geological complexities, inadequate investigations, mismanaged contracts, risk management, etc., which lead to considerable cost and time overruns.
- Going forward, the overall outlook for tunnel development in the country remains promising. According to India Infrastructure Research, the tunneling sector offers a strong pipeline of tunnel projects, spanning a length of over 3,600 km across various sectors like roads, railways, hydro, irrigation, water supply and sewerage and metro rail. The sector holds immense promise for contractors, consultants, and technology and equipment providers.
- The mission of this conference is to highlight the recent trends and developments and discuss the key challenges as well as the emerging tunneling technologies across various sectors. The conference will also showcase noteworthy projects, best practices and innovations in material and equipment.

Target Audience

The conference is targeted at top and middle-level managers from:

- Project Developers
- Hydro Power Developers
- EPC Contractors
- Irrigation Companies
- Metro Rail Operators
- Indian Railways
- Technology Providers (TBMs, excavator, drill rigs, cranes, loaders, roadheaders, shotcrete machines, etc)
- Water & Sewage System Developers
- Consultants and Design Service Providers
- Urban Local Bodies
- Etc.

AGENDA/STRUCTURE

TRENDS, DEVELOPMENTS AND OUTLOOK

- What have been the recent trends and developments in the tunnelling sector?
- What are the new and emerging opportunities?
- What are the key challenges and the future outlook?

CONTRACTORS' VIEWPOINT: EXPERIENCE AND UNADDRESSED CHALLENGES

- What has been the experience so far? What are the key lessons learnt?
- What are the biggest issues and challenges?
- What is the future outlook?

SEGMENT FOCUS: PROJECTS, TECHNOLOGIES AND OPPORTUNITIES

RAIL TUNNELS

HYDROPOWER TUNNELS

ROADS AND HIGHWAYS

WATER AND SEWAGE TUNNELS

METRO RAIL TUNNELS

- What has been the experience in tunnel construction in these segments?
- What are the techniques/methods currently deployed for construction? What are some of the noteworthy completed and upcoming projects?
- What are the biggest issues and challenges? How are they being addressed?

EMERGING TUNNEL CONSTRUCTION TECHNIQUES: EXPERIENCE, CHALLENGES AND NEW OPPORTUNITIES

- What has been the experience with emerging tunnel construction techniques like NATM/microtunnelling? What are its specific features (in terms of cost per km, equipment, material and manpower requirements, etc.)?
- What are the emerging trends and advancements?
- What are some of the best practices and noteworthy projects?

TUNNELLING COST ECONOMICS

- How has the project economics for tunnelling projects evolved over the years?
- What are the risks and challenges?
- What are some of the notable projects in terms of cost optimisation?

FOCUS ON ENGINEERING AND CONSTRUCTION PRACTICES

- What are the new trends and advancements in the engineering and construction of tunnels?
- What are the new technologies and solutions for tunnel construction?
- What are the specific issues and challenges? How are they being addressed?

FOCUS ON GEOTECHNICAL INVESTIGATIONS, DESIGN AND MONITORING

- What are the geotechnical investigation, survey and monitoring practices being followed?
- What are the technological advancements and innovations?
- What are the specific issues and challenges? How are they being addressed?

SMART SAFETY AND INSPECTION SOLUTIONS

- What are the emerging trends and advancements in the safety and inspection of tunnels?
- What are the new technologies, automation and robotic solutions available in this space?
- What were the challenges faced & the steps taken to overcome them?

SUSTAINABLE DESIGN STRATEGIES FOR TUNNELLING

- What are the recent trends and advancements in sustainable designs of tunnels?
- What are the issues and challenges faced?
- What are some of the noteworthy projects?

CHALLENGES AND STRATEGIES FOR TUNNELLING IN HILLY AREAS

- What has been the experience in tunnel construction in hilly areas?
- What are the challenges being faced? How are these being addressed?
- What are some of the noteworthy projects? What are the key lessons learnt?

FOCUS ON ROCK BLASTING AND EXCAVATION TECHNIQUES

- What has been the experience in tunnel construction in hard rock strata?
- What are the challenges associated with drilling, blasting and excavation? How are these being addressed?
- What are some of the noteworthy projects? What can be learnt from them?

FOCUS ON HVAC SYSTEMS IN TUNNELS

- What are the new and emerging requirements for HVAC systems (fire safety, ventilation, lighting, etc.)?
- What are the recent trends and advancements in this space?
- What are the specific issues and challenges?

FOCUS ON FIRE SAFETY AND VENTILATION

- What are the new and emerging fire safety and ventilation solutions for tunnels?
- What are the specific issues and challenges?
- What are some of the notable projects where deployment has taken place?

EQUIPMENT SHOWCASE

- What are the emerging trends and advancements in the equipment segment?
- How is the industry gearing up to meet the emerging equipment requirements for tunnel construction?
- What have been the biggest challenges? How are they being addressed?

NEW MATERIAL REQUIREMENTS

- What are the new and emerging material requirements for tunnel construction (steel, cement, anchors, explosives, girders, admixtures, etc.)?
- What are the new options and innovations (shotcrete material, fibre and rock reinforcement, geosynthetics, etc.)?
- What are some of the noteworthy initiatives? What have been the associated cost savings?

TUNNEL CONSTRUCTION - NORTH INDIA OPPORTUNITIES

The previous speakers include (in alphabetical order):

- ❖ Sharad Bhatnagar
General Manager, Geotech,
National Hydro Power Corporation
- ❖ Abhijeet Chaudhary
Assistant General Manager,
Mumbai Metro Rail Corporation
- ❖ Sanjay Dave
Vice President and Sector Head,
Engineering, **HCC**
- ❖ Vijay Garg
Chief General Manager/CPM (Civil),
NCRTC
- ❖ Ashish Gupta
President and Head Hydro Projects,
Contracts & Legal, **Gammon**
- ❖ S.N. Jha
Chief Project Manager, **UPMRC**
- ❖ Col Manish Kapil
Joint Director, Tunnels and Bridges,
BRO
- ❖ A.H. Khan
TFL Head, Mumbai Metro,
L&T Construction
- ❖ Yogesh M. Killedar
Assistant Engineer,
Municipal Corporation of Greater Mumbai
- ❖ Dr. Florian Krenn
Managing Director, **Geoconsult**
- ❖ Rajendra Kumar
General Manager, Operations,
Afcons Infrastructure
- ❖ Sadashiv Nayak
Vice President, **Patel Engineering**
- ❖ Prashant Navsalkar, General
Manager, **Bajaj Reinforcement LLP**
- ❖ Ajay Sabharwal
General Manager, SRT, **NHAI**
- ❖ G.R. Satyanarayana Reddy
Sales Manager, **Sandvik**
- ❖ Amit Saxena
Regional Sales Manager, **Trimble**
- ❖ Anirban Sen
Business Line Manager, **Epiroc**
- ❖ Vijay Sharma
Chief Administrative Officer,
Northern Railway
- ❖ Daljeet Singh
Director, **DMRC**
- ❖ Rajeev Soni
Chief Project Manager, **RVNL**
- ❖ H.L. Suthar
Executive Director,
National High-Speed Rail Corporation
- ❖ R.K. Vishnoi
Director, Technical, **THDC**
- ❖ Sunilkumar Vishwakarma
Head, Planning, **Tata Projects**

Previous participants:



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Registration Fee

Delegates	FEE			
	INR	GST@18%	Total INR	Total USD
One Delegate	25,000	4,500	29,500	357
Two Delegates	40,000	7,200	47,200	570
Three Delegates	55,000	9,900	64,900	784
Four Delegates	70,000	12,600	82,600	998

Please note: There is a **special low fee of Rs 7,000** per participant for state-owned hydro power producers, PWDs, ULBs, Indian Railways, metro rail corporations, research organisations and academic institutions.

- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment

Sponsorship opportunities are available

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