8th Annual Conference on
TUNNEL CONSTRUCTION IN INDIA
Emerging Requirements, New Technologies and Best Practices
May 22-23, 2017, The Leela, Mumbai

Organisers:
Indian Infrastructure
PowerLine

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Mission

- Tunnel development in India has accelerated in the past few years. This is driven by increased investments in the hydropower, railway, road and highway, metro rail, and water and sewerage sectors. Around 2,700 km of tunnel length is either under construction or is planned to be taken up in the future.
- Several landmark and challenging projects are under implementation, the size and complexity of which have increased over the years. These include the 9 km Chenani-Nashri tunnel on the Jammu-Srinagar national highway, the 8.8 km Rohtang tunnel on the Leh-Manali highway, and the 11.55 km rail tunnel on the Jiribam-Tupul-Imphal rail line.
- New designs, technologies and construction techniques for tunnelling are thus becoming a growing area of interest for the industry.
- Advanced mechanised techniques such as the use of tunnel boring machines (TBMs) and the New Austrian Tunnelling Method (NATM) are gaining prominence. A variety of new trenchless technologies such as micro-tunnelling and horizontal directional drilling are being deployed to undertake tunnelling in congested areas.
- The standards of tunnel design and engineering are continuously improving. New types of materials are also being used to improve the durability and strength of tunnels.
- Further, special techniques/methodologies such as DRESS (drainage, reinforcement, excavation, support and solution) are increasingly being considered as a viable solution for tunnelling in challenging rock and soil conditions. There is also an increased emphasis on pre-excavation investigation and survey.
- At the same time, the structure of the tunnelling industry is constantly evolving. Domestic players are entering into tie-ups and strategic alliances with global players to bring in the latest technology and equipment. Renting of equipment from bigger players has also emerged as a preferred option.
- Going forward, the outlook for the tunnel development market is promising and will be largely driven by the central government’s focus on infrastructure development. One of the major growth drivers for tunnel construction will be the urban rail segment. About 2,050 km of metro rail network is expected to be added in the next six to eight years. Heavy investments are planned for the construction of all-weather roads and new tunnels in strategic and sensitive areas. The railway capex target for 2017-18 is at an all-time high of Rs 1.3 trillion. Hydropower capacity is expected to increase by 13 GW in the next five to six years.
- The tunnelling segment is thus expected to offer significant business opportunities for contractors, technology providers, and equipment and material suppliers.
- However, there are many factors that can slow down implementation and execution. These include geological complexities, inadequate investigations, deficiencies in contract documents, complexities of the Himalayan region and the Western Ghats, safety risks, etc.
- The mission of this conference is to highlight the latest innovations and most promising and relevant techniques for tunnel construction, identify new and emerging requirements, and highlight opportunities in the hydropower, metro, roads and railways sectors. It will also showcase successful projects and best practices.

Target Audience

The conference is targeted at:

- MRTS project developers
- Equipment providers
- Hydropower generators
- Fire protection and safety system providers
- Water and sewerage system developers
- Communication and security equipment suppliers
- Indian Railways
- Consultancy and design service providers
- Road developers
- Urban local bodies and relevant government agencies
- Pollution control and ventilation equipment manufacturers
- Tunnel design and construction organisations
- Civil contractors
- Technology providers
- Other service providers, etc.

Previous Participants

What have been the key trends and developments in the tunnelling sector?
What is the future outlook? What are the new opportunities?
What are the key issues and challenges?

What has been the experience of contractors?
What have been the key challenges and lessons learnt?
What are the future plans/priorities?

What are the different tunnelling methods and techniques in use (drill and blast, NATM, cut and cover, etc.)?
What are the key issues and challenges faced in tunnelling?
What are the emerging technologies? What has been the experience so far?

What is the current state of TBM deployment in India?
What are the prevailing procurement options?
What are the complexities in TBM designs?
What are the global advances in TBMs? What are the key challenges?

What is the current state of trenchless technologies in India?
In which situations is it most appropriate to deploy trenchless techniques?
What are the global advances?
What are the key issues and challenges?

What are the current design practices? What are the new Indian design requirements?
What are the key design elements – geology, ground parameters, structure, soil and rock mechanics, etc.?
What are the global best practices? Which designs are the most promising and relevant in the Indian scenario?

What have been the technological advancements in improving tunnel safety?
What has been the experience so far?
What are the global best practices?

What is the equipment needed for tunnel construction? What are the procurement options?
What are the recent technology developments and innovations in India and globally?
What are the key issues and challenges? What is the outlook?

What has been the tunnelling experience in the Himalayan region and the Western Ghats?
What are the various risks and complexities?
How can modern tunnel construction technologies help in managing such complexities?

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- There is a 20 per cent "early bird" discount for those registering before April 28, 2017.
- There is a special low fee of Rs 5,000 per participant for state-owned hydro power producers, PWDs, ULBs, Indian Railways, metro rail corporations, research organisations and academic institutions.
- To register online, please log on to http://indiainfrastructure.com/conf.html
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