



8th Edition

# URBAN RAIL-BASED TRANSIT SYSTEMS

A VIRTUAL CONFERENCE

Progress, Plans, Opportunities and Challenges

November 24-25, 2020

Organiser:



Supported by:

Global Mass Transit Report

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# Urban Rail-Based Transit Systems

## Mission

- The urban rail sector has evolved at a steady pace. The regulatory clarity and scope for technological innovation that the sector offers has kept the stakeholder interest high. The network has increased significantly, up from 81 km in 2006 to about 700 km operational at present, with about 450 km added over the past six years. So far, 13 cities have an operational metro network, and this is expected to increase to over 25 cities in the next few years. Highlighting a plenty of opportunities, the report of the Taskforce on the National Infrastructure Pipeline puts forth a capital investment target of \$78 billion till 2025 for metro projects.
- However, Covid-19 has impacted construction activity in the sector. More importantly, the suspension of operations has resulted in huge revenue losses for metro rail corporations. The Delhi, Kochi, Bengaluru, Chennai and Lucknow metro rail corporations have together incurred losses of around Rs 20 billion on account of suspended operations. The resumption of services in some cities will step up demand, albeit slowly.
- In the current context, embracing the post Covid-19 requirements has become crucial. Technology is now going to play a bigger role. Thermal scanners are being deployed at metro stations to test the temperature of commuters and warning signals will be given in case of crowding. Stations are also being equipped with foot-operated elevators to avoid the spread of Covid-19.
- Overall, the indigenous manufacturing of rolling stock and signalling systems is gaining prominence, with the setting up of a number of manufacturing facilities and expansion of the existing ones. Further, the fare payments industry is undergoing developments such as the adoption of a variety of payment methods, especially interoperable electronic payment methods such as QR codes and contactless ticketing, smartcards, bank cards, mobile wallets and near-field communication (NFC)-enabled devices.
- On the financing side, reliance on public and multilateral funds continues to grow. While the PPP experience in the sector has not been very encouraging, the opportunities emanating for private players are aplenty, particular in the O&M space. Focus on generating more non-fare revenue is also growing. Options such as train wrapping; licensing of food kiosks; branding of commercial outlets/shopping malls inside stations and concessions for commercial/residential developments; and station branding are being explored.
- Land acquisition, clearances, right of way, engineering issues, geotechnical challenges and changes in scope are some of the other concerns facing the segment. In order to curtail operating costs, several metro systems have been devising ways to reduce energy consumption and promote the use of renewable energy. The use of regenerative braking systems, VVVF drives and LED lighting for trains and stations are some of the steps in this direction.
- Meanwhile, the overall success of metro rail projects in Tier I cities has led to a growing demand for similar systems in Tier II and Tier III cities. Alternative systems such as metrolite and metroneo have been proposed in some of the cities with lower expected ridership.
- New concepts and technologies such as mobility-as-a-service (MaaS), internet of trains, big data, predictive maintenance, and renewable energy to power trains and stations are also being explored.
- **The mission of this conference is to highlight the key trends and developments in the segment, discuss the medium- to long-term impact of Covid-19, identify the key issues and concerns, showcase noteworthy projects and emerging technologies. The conference will also examine new opportunities in the development, design and construction of the urban rail system as well as in the deployment of advanced rolling stock, signalling, telecommunications and fare collection systems.**

## Target Audience

The event is expected to draw participation from executives, managers and decision-makers from:

- Urban rail operators
- Project developers
- Urban local bodies and relevant government bodies
- Construction companies and contractors
- Urban transport planning companies
- Urban transport operators
- Technology providers
- Policymakers and regulators
- Bridge and tunnel construction companies
- Equipment and service providers
- Financial institutions
- IT solution providers
- Other transit organisations
- International and national development agencies
- Consultants
- Potential developers/investors
- Legal firms
- Industry analysts, etc.

## AGENDA/STRUCTURE

### TRENDS, IMPACT OF COVID-19 AND OUTLOOK

- ❖ What are the key sector trends? What has been the impact of Covid-19 on project delivery, operations and investments?
- ❖ What are the key issues and challenges?
- ❖ What is the outlook for the sector? What are the upcoming opportunities?

### METRO RAIL OPERATORS' PERSPECTIVE: PLANS, PERFORMANCE AND FUTURE STRATEGIES

- ❖ What is the perspective of metro rail operators on the progress in the urban rail segment?
- ❖ What has been the impact of Covid-19 on project delivery, operations and investments?
- ❖ What are some of the noteworthy initiatives being taken to improve operations?
- ❖ What are the developmental and operational challenges? What are some of the procurement and technology deployment related best practices?

### CONTRACTORS' PERSPECTIVE: EXPERIENCE, CHALLENGES AND OUTLOOK

- ❖ What has been the experience so far? What has been the impact of Covid-19 on project execution?
- ❖ What are the key contractual issues? What are the lessons learnt?
- ❖ What is the future outlook? What are the expectations from the Concessioning authorities?

### SPOTLIGHT ON ROLLING STOCK

- ❖ What are the emerging rolling stock requirements? What are some of the recent advances?
- ❖ What has been the role of the MoHUA's guidelines on rolling stock standardisation?
- ❖ What has been the progress in the indigenous manufacturing of rolling stock?
- ❖ What has been the experience in the operation of driverless trains?

### NEXT-GEN FARE COLLECTION SYSTEMS: MOBILE WALLETS, CONTACTLESS TICKETING, QR CODES AND NFC

- ❖ What are the new and emerging trends in the deployment of innovative ticketing solutions and fare collection systems?
- ❖ What has been the experience so far?
- ❖ What are the future growth opportunities?

### FOCUS ON SIGNALLING AND TELECOMMUNICATION REQUIREMENTS

- ❖ What are the emerging needs and requirements with respect to signalling and telecommunications?
- ❖ What are the key system upgrades, advancements and innovations?
- ❖ What are the opportunities in the deployment of these systems?

### ELECTRIFICATION NEEDS AND REQUIREMENTS

- ❖ What are the current electrification requirements of urban rail-based transit systems?
- ❖ What are the recent advances to ensure energy efficient operations?
- ❖ What are the key issues and challenges?

### TUNNELLING MARKET: NEW REQUIREMENTS, CHALLENGES & OPPORTUNITIES

- ❖ What has been the experience with metro tunnel construction?
- ❖ What are the key prevalent techniques and methods for tunnelling?
- ❖ What are the key issues and challenges? What are the lessons learnt?

### CONSTRUCTION OF ELEVATED STRUCTURES

- ❖ What has been the experience with the construction of elevated MRTS structures?
- ❖ What are the key prevalent techniques and methods? How has the cost economics evolved over time?
- ❖ What are the key issues and challenges? What are the lessons learnt?

### FINANCIERS' PERSPECTIVE AND THE WAY FORWARD FOR PPPs

- ❖ What are the key financing trends in the sector?
- ❖ What has been the overall experience with PPPs? What has been the impact of the Metro Rail Policy?
- ❖ What are the new sources of funds and innovative financing models that can be explored (land value capture, property development, etc.)? What are the key risks and challenges?

### EMERGING NON-REVENUE SOURCES: FOCUS ON STATION AREA DEVELOPMENT

- ❖ Station branding
  - ❖ Commercial and real estate development
  - ❖ Train wrapping
  - ❖ Commercial outlets/shopping malls
  - ❖ Others
- What are the new concepts being considered for enhancing non-revenue streams?
  - What has been the experience so far? What are the upcoming opportunities in this area?
  - What are the implementation roadblocks?

### TRANSIT-ORIENTED DEVELOPMENT

- ❖ What has been the city-level experience with regard to the promotion of transit-oriented development?
- ❖ What is the future potential?
- ❖ What are the issues and challenges being faced?

# Urban Rail-Based Transit Systems

## AGENDA/STRUCTURE (contd...)

### PROJECT SHOWCASE: NEW OPPORTUNITIES IN URBAN RAIL-BASED TRANSIT

- ❖ Metro
  - ❖ Monorail
  - ❖ Metroneo
  - ❖ Metrolite
- What is the future outlook for the development of these systems?
- What are the standards and specifications for the development of light rail and rapid transit systems?
- What are the key risks and challenges associated with the development of such systems?

### TECHNOLOGY SOLUTIONS FOR THE POST-COVID WORLD

- ❖ What are some of the technology solutions that have come to the forefront in light of Covid-19?
- ❖ What has been the industry's response with regard to the deployment of such technologies?
- ❖ What are some of the global best practices?

### VIDEO SURVEILLANCE AND ANALYTICS: CROWD MANAGEMENT IN LIGHT OF COVID-19

- ❖ What are the new and emerging surveillance requirements at metro stations in the current scenario?
- ❖ What are the existing systems and technologies deployed for surveillance and monitoring? What is the scope of retrofitment of these systems?
- ❖ What are the new and advanced technologies being offered by vendors for surveillance and crowd monitoring with minimum human interference?

### MOBILITY-AS-A-SERVICE: PROGRESS AND FUTURE POTENTIAL

- ❖ What have been the key advancements in this area?
- ❖ What are the new technologies being considered for deployment?
- ❖ What is the future of MaaS?

### STATION BUILDINGS: FOCUS ON SUSTAINABLE DESIGNS

- ❖ What are the new and emerging design requirements?
- ❖ What are some of the global best practices?
- ❖ What are the possible areas/interventions that could lead to cost savings?

## PREVIOUS SPEAKERS (in alphabetical order):

### S.S. Joshi

Director, Rolling Stock and Signalling,  
Delhi Metro Rail Corporation

### Piyush Kansal

Group General Manager, Urban Transport,  
RITES

### Kumar Keshav

Managing Director, Lucknow Metro Rail Corporation

### Pawan Kumar

Associate Town and Country Planner, MOHUA -Town  
and Country Planning Organisation

### Sushil Kumar

Director (Operations),  
Lucknow Metro Rail Corporation

### Mahendra Kumar

Director, Rolling Stock and Systems,  
Lucknow Metro Rail Corporation

### Anup K. Kundu

Director RS&T,  
Kolkata Metro Rail Corporation

### Rajeev Kumar

General Manager (S&T),  
Mumbai Metro Rail Corporation

### Surjit Madan

Head Systems,  
Amaravati Metro Rail Corporation

**M.P. Naidu**, Project Director,  
L&T Metro Rail (Hyderabad)

### R. Ramana

Executive Director, Planning,  
Mumbai Metro Rail Corporation

### Sudhir Rao

MD, India,  
Bombardier Transportation

### Vijayan S.R.

Assistant Vice-President, ABB

### Palash Srivastava

Deputy CEO, IIFCL Projects

### Daljeet Singh

Director, Works,  
Delhi Metro Rail Corporation

### Ajay Talwar

Head Business Verticals,  
Bosch Security Solutions

### Keshav C. Tayade

Add. GM (Quality Control), Maharashtra  
Metro Rail Corporation Limited- Nagpur  
Metro Rail Project

### Rajeev Ved

Managing Director and CEO,  
Hitachi Rail STS India (Ansaldo STS)

## Previous Participants from Metro Rail Corporations



### Previous Participants

The participants in our previous related conferences include: Aarvee Associates, ABB, Accenture, AECOM, AF Payments, Alaska Railroad Corporation, ALCATEL-LUCENT, Alstom Transport, Applied Pavement Technology, APTA, Atkins, Auckland Transport, B4S Solutions, Bajaj Reinforcement, BAE Systems, Bentley Systems, Birmingham-Jefferson County Transit Authority, Bluestar India, Bombardier Transportation, Bosch, Carrier Air-conditioning & Refrigeration, Calgary Transit, Cambridge Systematics, Capital Metropolitan Transportation Authority, Central Japan Railway Company, Central Ohio Transit Authority, CDM Smith, CH2M Hill, Chicago Transit Authority, Chris, Chennai Metro Rail Corporation, Cisco, Cubic Transportation, Cummins, DB Engineering, Dehn, DC Surface Transit Corporation, Delhi Metro Rail Corporation, Delta, Deloitte & Touche, Deutsche Bank, DuPont, European Commission, European Investment Bank, EY, EZ-Link, Federal Communications Commission, Federal Transit Administration, Fime, Fluid Control, Fujitsu Network Communications, General Electric Company, General Resources Company, Global Traffic Technologies, Goldman Sachs, Greater Wellington Regional Council, GVB Amsterdam, Gujarat Metro Rail Corporation, Gunnebo, Halcrow, Hatch Mott MacDonald, Hitachi, HCC, Hitachi Rail STS India (Ansaldo STS), Hong Kong Tramways, Houston Metro, IBM, IIFCL, Infineon Technologies, INIT Asia-Pacific, IVU Traffic Technologies, Jindal Stainless, JMC Projects, Jacobs, JL Group Myanmar, KEC International, KEI Industries, Kolkata Metro Rail Corporation, Kochi Metro Rail, KPMG, L&T Metro Rail (Hyderabad), Land Transport Authority, Lea + Elliott, Light Rail Transit Authority-Manila, Liebherr, London Underground, Los Angeles Metro, Louis Berger, LULA, Lucknow Metro Rail Corporation, Maha-Metro Rail Corporation, March Networks, MARTA, Maryland Transit Administration, Mastercard Asia Pacific, Metro Transit- Hiawatha Light Rail, Metrolink, Metropolitan Transportation Authority, Metro Link Express for Gandhinagar & Ahmedabad Company, Mega Metro Engineering, Mitsubishi Electric, Miami Dade Transit, Ministry of Transport and Communication Qatar, Ministry of Transport of Thailand, Mitsubishi Electric, Mitsubishi Heavy Industries, MSI Global, MTA - Bridges and Tunnels, MTA - Capital Construction, MTA New York City Transit, Mumbai Metro Rail Corporation, Nagpur Metro Rail Corporation, Namma Metro, NEC Corporation, New Jersey Transit, New Zealand Transport Agency, Noida Metro Rail Corporation, Otago Regional Council, Parson Brinckerhoff, Pennsylvania Department of Transportation, Philips, Pricewaterhouse Coopers, RATP DEV America, RTA Chicago, RTD Denver, Rotterdamse Elektrische Tram (RET), Rapid Metro Gurgaon, RDSO, RITES, Rodic Consultants, Rosenberger, Rhomborg Sersa Service GmbH, Saigon Industry Corporation, San Francisco Municipal Transportation Agency, SC Soft, Siemens, Singapore LTA, Shift2Rail, SNC-Lavalin, Smartrac Technology, SNCF, Strukton Rail, Sumitomo, Sun Metro, SYTRAL, Thales, GBS Group, The World Bank, Tata Bluescope Steel, Thales, Toronto Transit Commission, Toshiba, Transdev, Transport for London, Trapeze, Trimble, Ultratech Cement, Universal Engineers, Uttar Pradesh Metro Rail Corporation, Ventyx, Veolia Transportation, Virginia Department of Rail and Public Transportation, Vaan Infra, Visa, VixTechnology (USA), Volvo, Washington County, Whiting Corporation, WMATA, Worldline, Xentrans, West Midlands Combined Authority, Xerox, ZNAPZ, etc.

# Urban Rail-Based Transit Systems

## What differentiates our conferences?

- The **agenda** is developed by our researchers, who track the sector round the year. It is thus **relevant** and **topical**. It is not driven by a particular organisation and does not have a particular slant.
- The **speakers** are **professionals** and **experts** involved in the sector, not a mix of ambassadors, ministers, celebrities and business owners.
- The conferences do not just comprise panels and speeches; they provide a good mix of **expert presentations** and **case histories**, and of course **panel discussions**.
- We have **representation** from **across the country**, as is the case at our physical conferences too.
- Each **stakeholder group** – **policymakers**, **developers**, **financiers**, **consultants** and **relevant NGOs** – is represented at our conferences.
- The moderators merely ask the questions. The **stars** are the **speakers** themselves.
- The **sessions begin and end on time**.
- There is adequate time for a **Q&A session** with **each speaker**. These are not “hit and run” speeches.
- The **delegates** are **professionals** who are vested in the sector, and are not just assembled through social media.
- A **recap** of the conference is also made available to reinforce the key takeaways.

## Delegate benefits (Virtual Conference)

- Direct interaction with senior speakers (Q&A facility)
- Easy connectivity to geographically dispersed delegates (click of a mouse)
- Cost effective (lower ticket price as compared to a physical conference)
- Offers flexibility and convenience
- Access to conference recording
- Recap of conference sessions
- Contributes to sustainability and lower carbon footprint

## Benefits of sponsorship (Virtual Conference)

- E-Meet influencers and decision-makers/
- Reach out to and engage with new or active prospects
- Generate high quality sales leads
- Increase brand recognition
- Target a captive and engaged audience
- Drive website traffic through social media promotions
- Position your company as the thought-leader in your industry

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## Registration Fee

	INR	GST@18%	Total INR	Total USD
1 Login	9,000	1,620	10,620	150
2 - 3 Logins	15,000	2,700	17,700	250
4 - 5 Logins	21,000	3,780	24,780	350
6 - 9 Logins	27,000	4,860	31,860	450
10 - 20 Logins	33,000	5,940	38,940	550

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

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### Payment Policy:

- Full payment must be received prior to the conference.
- Payments for "early bird" registrations should come in before the last date of discount. Discount offers cannot be combined with any other offer.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

## Organisers

The conference is being organized by **India Infrastructure Publishing**, a leading provider of information on the infrastructure sectors through conferences, magazines, reports and directories. The company publishes **Indian Infrastructure** (a magazine devoted to infrastructure policy and finance) and a series of research reports on the transportation sector including **Urban Rail in India** and **Railways in India**. The company also publishes the **Urban Mass Transit Directory**.

**Global Mass Transit** is a leading provider of information and analysis on the global mass transit industry including urban rail, metro, bus, light rail, regional rail, and intermodal passenger transport. It publishes the **Global Mass Transit Report** (a monthly newsletter) and **Global Mass Transit Weekly** (a weekly update), and operates the [www.globalmasstransit.net](http://www.globalmasstransit.net) website.

Contact: Priyanka Rawat, Conference Cell, India Infrastructure Publishing Pvt. Ltd.

B-17, Qutab Institutional Area, New Delhi 110016.

Tel: +91-8587065590, 6366804343 | Email: [priyanka.rawat@indiainfrastructure.com](mailto:priyanka.rawat@indiainfrastructure.com)