

5th Annual Conference on

# URBAN RAIL-BASED TRANSIT SYSTEMS

Trends & Outlook; Technologies & Best Practices

February 5-6, 2018, Le Meridien, New Delhi

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# URBAN RAIL-BASED TRANSIT SYSTEMS

## Mission

- India's urban rail network has grown significantly over the past decade, up from 81 km in 2006 to about 375 km. Urban rail systems are currently operational in nine cities. The average daily ridership has increased from about 0.9 million passengers in 2006 to 3.87 million in 2016. Delhi Metro's annual ridership crossed the 1 billion passenger mark in 2016-17.
- The outlook for the sector is promising. Over 100 projects spanning 2,000 km have been planned at an investment of Rs 6.4 trillion.
- However, this project pipeline faces risks related to financing, land acquisition, regulatory clearances and geological surprises.
- To resolve some of these issues, in August 2017, the government approved the new Metro Rail Policy, 2017. This policy aims to facilitate innovative financing, revive private investment by making public-private partnerships (PPPs) mandatory, promote transit-oriented development and provision of last-mile connectivity, and improve project appraisal procedures.
- In another major initiative, in April 2017, the government introduced the norms to procure at least 75 per cent of rail cars and 25 per cent of critical equipment locally under the Make in India initiative. The government has also standardised norms for rolling stock and signalling equipment applicable to over 90 per cent of the present imports. The move is expected to enable technology transfer, reduce costs, de-risk the industry from exchange rate fluctuations, drive the establishment of ancillary units along with manufacturing hubs, etc.
- Cities across India are experimenting with state-of-the-art technologies to make urban rail systems more efficient, reliable and passenger-friendly given the rapidly increasing ridership. Indian metro systems are steadily moving from semi-automatic to unattended train operations/driverless train operations. Most of the upcoming systems have plans to deploy the highest grades of signalling such as communications-based train control (CBTC) systems. Several systems are also exploring the deployment of advanced fare payment systems such as open loop ticketing and bank cards.
- In addition, new concepts and technologies such as mobility-as-a-service (MaaS), the internet of trains, big data, predictive maintenance, and the use of renewable energy to power trains and stations are being introduced in the Indian urban rail space with the aim of transforming the sector.
- The mission of this conference is to examine key trends, study the impact of recent policy initiatives, highlight opportunities and discuss key outstanding issues in the development of urban rail systems in India. The conference will also showcase noteworthy projects, the latest technologies and construction techniques, and best practices in the segment.

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## Target Audience

The conference is targeted at:

- |  |   |   |
|--|---|---|
| - 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

### KEY TRENDS AND OUTLOOK

- ❖ What are the key sector trends?
- ❖ What are the key recent developments?
- ❖ What is the outlook for the sector? What are the upcoming trends?

### GOVERNMENT PERSPECTIVE

- ❖ What are the salient features of the new Metro Rail Policy? What is the industry feedback on the policy?
- ❖ What are the key features of the Make in India initiative with regard to the urban rail sector?
- ❖ What are the outstanding issues and challenges?

### DEVELOPER/OPERATOR PERSPECTIVE

- ❖ What are the plans for the expansion of existing projects and development of new systems?
- ❖ Which of the new technologies are developers/operators planning to deploy?
- ❖ What are the issues and challenges facing the developers/operators?

### ROLLING STOCK

- ❖ What are the needs and requirements of the Indian urban rail sector with respect to rolling stock? What are the opportunities?
- ❖ What have been the advances in rail rolling stock?
- ❖ What are the plans of urban rail developers/operators to introduce driverless trains?
- ❖ What are the issues and challenges facing the rail manufacturing industry?

### FINANCING URBAN RAIL PROJECTS

- ❖ What are the various sources of funds for urban rail projects in India? What are the key trends?
- ❖ What are the new sources of funds that can be explored (land value capture, property development, etc.)?
- ❖ What are the risks and challenges?

### SPOTLIGHT ON PPP

- ❖ What are the provisions regarding PPP in the new Metro Rail Policy?
- ❖ What are the risks with regard to PPP in the development of urban rail systems?
- ❖ What is the opportunity for private players in the urban rail segment in India?

### PROJECT SHOWCASE: METRO RAIL PROJECTS

- ❖ What are the key features of metro rail projects (completed and under implementation)?
- ❖ Which new technologies have been adopted?
- ❖ What are the key reasons for project delays? What lessons can be learnt from these projects?

### PROJECT SHOWCASE: MONORAIL AND LIGHT-RAIL PROJECTS

- ❖ What are the key features of monorail and light-rail projects (completed and under implementation)?
- ❖ Which new technologies are being adopted?
- ❖ What are the key reasons for project delays? What lessons can be learnt from these projects?

### PROJECT PLANNING, DESIGN AND ENGINEERING

- ❖ What are the design, construction and engineering techniques used for the development of urban rail systems?
- ❖ What are the latest construction methods and techniques being used?
- ❖ What are the various project implementation challenges? How can they be overcome?

### TUNNELLING FOR URBAN RAIL PROJECTS

- ❖ What are the best practices in tunnel design and construction of urban rail projects?
- ❖ What are the key issues and challenges? How can they be resolved?
- ❖ What are the global best practices that are relevant to India?

### ELEVATED STRUCTURES FOR URBAN RAIL PROJECTS

- ❖ What are the best practices in the construction of elevated structures for rail projects?
- ❖ What are the key issues and challenges? How can they be resolved?
- ❖ What are the global best practices that are relevant to India?

### STATION DESIGN AND DEVELOPMENT

- ❖ How can stations serve as retail/commercial use spaces and enhance non-fare revenue?
- ❖ What are the Indian best practices in station design and development?
- ❖ What are the global best practices that are relevant to India?

### MOBILITY-AS-A-SERVICE (MaaS)

- ❖ What is MaaS? What are the key features?
- ❖ How can MaaS contribute to the vision of smart city development, multi-modal transport development and last mile connectivity?
- ❖ How are cities across the world achieving MaaS for commuters?

### TECHNOLOGY SHOWCASE: SIGNALLING AND TELECOM

- ❖ What is the current status of signalling and telecom systems in India?
- ❖ What are the opportunities in the Indian market?
- ❖ What are the key global advances in signalling and telecom systems?

### TECHNOLOGY SHOWCASE: FARE COLLECTION SYSTEMS

- ❖ What is the current status of deployment of fare collection systems in India?
- ❖ Which cities are using advanced fare collection systems? What are their experiences?
- ❖ What are the opportunities for the deployment of fare collection systems?
- ❖ What are some of the global developments in this segment?

### ENERGY NEEDS OF URBAN RAIL SYSTEMS

- ❖ What are the electrification needs of urban rail systems? What have been some of the recent contract awards?
- ❖ How can renewable energy be used in urban rail systems in India? What have been some of the recent developments in this area?
- ❖ What are some of the global case studies? What can Indian systems learn from them?

### ASSET MANAGEMENT FOR URBAN RAIL SYSTEMS

- ❖ What are the asset management practices followed by Indian urban rail systems?
- ❖ What are the global best practices? Which of these are relevant to the Indian scenario?
- ❖ What are the technology advancements in asset management for urban rail systems?

## Previous Participants from Metro Rail Corporations



## Previous Participants

The participants in our previous conference include ABB India, AECOM, Afcons, Alcoa, Alstom Transport, Arcadis, Arup India, Athenta Technologies, Bangalore Metro Rail Corporation, Barco Electronic Systems, BEML, Bentley systems, BHEL, Bombardier, Bosch, British Steel, CAF, Carrier Airconditioning & Refrigeration, Cavotec India, CBRE South Asia, CH2M hill, Chemito Infotech, Chennai Metro Rail, CIDCO, Clean Flo, Consort Digital, Creative Group, CRISIL Infrastructure Advisory, DIMTS, DMRC, Deloitte Touch Tohmatsu India, Delta Electronics, Doka India, Egis India Consulting Engineers, EMEIA, Emtelle UK, EY, Fluid Controls, Geodata India, Gunnebo, HCC, Herrenknecht Asia, HMRTC, Honeywell Automation India, Hubersuhner, Hubner, Hyderabad Metro Rail, Icomera AB, IDOM India, IL&FS Infrastructure, IL&FS Rail, India Infrastructure Finance Company, Indra Sistemas India, Indus Consultrans, Ingersoll-Rand (India), Intercontinental Consultants, Ison Technologies, ITD Cementation, JM Financial Institutional Securities, JSW Steel, KEC, KEI, KFW, KKM Soft, KMRCL, KPMG, L&T Construction, L&T Metro Rail (Hyderabad), Lafarge, Larsen & Toubro, LEA Associates South Asia, Liebherr, Louis Berger, Lucknow Metro Rail, M&I Materials India, Magnetic Autocontrol, Mega, Mega Metro Engg, MIDAS IT, Mitsubishi, Mitsui & Co, MMRCL, MMRDA, Monnet International, Mumbai Metro One, Nagpur Metro Rail, NBCC, Noida Metro Rail, Nomura, Oriental Consultants, Outokumpu, Padeco, Parixit Industries, Pennar India, PMC Projects, Power Electronics, PWC, Qinquangdao Tianye Tolian Heavy Industry, Rail Coach Factory, Raychem, Rehau Polymers, Reliance Infrastructure, RITES, Robbins Tunneling And Trenchless Technology, Robert Bosch Engineering And Business Solutions Private Limited, Roxtec, Sagem Morpho Security, Saini Electrical & Engineering Works, Saira Electronic Security and Intelligence Service (India), Schaultbau, Sidwal, Siemens, STP, SUCG Infrastructure, Sumitomo, Tadiran Telecom, TATA Consulting Engineering, Tata Projects, Tata Steel, Terratec, Thales, Titagarh Wagons, Trimble, TVAstar Engineering Solutions Private Limited, UK Trade & Investment, Urban Transport and High Speed Directorate RDSO Lucknow, UTC, VINCI Concessions India, Vision Systems & Solutions, Vossloh, Wabtec Corporation, Yes Bank, Zen Equip India, Zenitel India and many more.

## PREVIOUS SPEAKERS

**Ashwini Bhide, IAS,**  
Managing Director,  
Mumbai Metro Rail Corporation

**Narendra Kumar Garg,**  
Then Managing Director,  
Kolkata Metro Rail Corporation

**H.S. Anand,**  
Director, Rolling Stock,  
Delhi Metro Rail Corporation

**Sharat Sharma,**  
Director, Operations,  
Delhi Metro Rail Corporation

**Daljeet Singh,**  
Director, Works & Infrastructure,  
Lucknow Metro Rail Corporation

**Ramnath Subramaniam,**  
Executive Director, Strategic Planning,  
Nagpur Metro Rail Corporation

**B.L. Manjunath,**  
Executive Director, Rail & Metro,  
BEML

**J. Ravikumar,**  
Chief Financial Officer,  
L&T Metro Rail (Hyderabad)

**Bharat Salhotra,**  
Managing Director, India & South Asia,  
Alstom Transport

**Harsh Dhingra,**  
Chief Country Representative, India,  
Bombardier Transportation

**Arvind Kumar Rai,**  
General Manager, Underground,  
Chennai Metro Rail

**Dilip Jadeja,**  
Vice President Rolling Stock and Electrical,  
IL&FS Rail (Rapid Metro Rail Gurgaon)

**Tilak Raj Seth,**  
Executive VP and CEO, Mobility Division,  
Siemens

**K.V. Unnikrishnan,**  
Deputy General Manager, Operations,  
Kochi Metro Rail

**P.K. Varma,**  
General Manager, Signalling & Telecom,  
Metro Link Express for Gandhinagar &  
Ahmedabad Company

**Ram Gopal Saini,**  
Joint General Manager and Project Director,  
L&T Constructions

# SNAPSHOTS FROM PREVIOUS YEARS



## Sponsorship Opportunities:

### Lead sponsors (up to two):

- Up to six delegate registrations from the sponsoring company
- One speaker slot
- Table space at the conference
- Mention on all conference promotional material (mailings, ads, etc.)
- Distribution of sponsor promotional material to each delegate
- Prominent logo presence at the conference (backdrop, vertical panel, etc.)

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- Up to four delegate registrations from the sponsoring company
- Table space at the conference
- Mention on all conference promotional material (mailings, ads, etc.)
- Distribution of sponsor promotional material to each delegate
- Logo presence at the conference (backdrop, vertical panel, etc.)

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## Trends & Outlook; Technologies & Best Practices

February 5-6, 2018, Le Meridien, New Delhi

### Organisers

The conference is being organised 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 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.

## REGISTRATION

I would like to register for the conference. I am enclosing Rs \_\_\_\_\_ vide cheque/demand draft no. \_\_\_\_\_ drawn on \_\_\_\_\_ dated \_\_\_\_\_ Company GST No. \_\_\_\_\_ in favour of **India Infrastructure Publishing Pvt. Ltd.** payable at New Delhi.

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Delegates	Fee			
	INR	GST @ 18%	Total INR	Total USD
One delegate	22,500	4,050	26,550	445
Two delegates	37,500	6,750	44,250	738
Three delegates	52,500	9,450	61,950	1,033
Four delegates	67,500	12,150	79,650	1,328

- There is a fee of Rs 7,000 per participant for state metro rail corporations, ULBs, development authorities, and academic and research institutions. GST @ 18 per cent is applicable on the registration fee.
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

### Terms and Conditions:

- The conference is a non-residential programme.
- Full payment must be received prior to the conference.
- Conference fee includes lunch, tea/coffee and conference materials.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Private Limited.

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