Maglev Technology and Its Comparison with Other Mode of Transportation

INDIA FIRST 'S MAGLEV MAGNETIC DOUBLE DECKER SYSTEM

(Elevated Transport System)

IAT- INNOVATIVE ACCESS TEAM

&

UNITY INFRA TRANSIT PROJECT IMPLEMENTERS

All Over The India Of Mass Transportation & Light Rail Transportation

METRO RAIL	**All Capital States Running In India**
MONORAILS	**Mumbai**
MRTS	**Main Cities Running In India**
TRAMS	**Only In Calcutta**

Maglev Train Proposals

The railway ministry has already taken the first steps to implement state-of-the-art Maglev (magnetic levitation) trains within three years Indian Railways have floated an 'Expression of Interest' EOI for designing, building, commissioning, operation, running and maintenance of levitation based train system on public private partnership (PPP) basis, Minister of State for Railways Rajen Gohain said

India

Pune (Pimple Saudagar) – Mumbai (Panvel): The Indian Ministry was in the process of reviewing a proposal to start a maglev train system in India

Chennai - Bangalore - Mysore

Per Large and Medium Scale Industries Minister of Karnataka Mr. Murugesh Nirani, a detailed report will be prepared and submitted by December 2012 and the project is expected to cost $26 million per kilometer of railway track. The speed of maglev will be 350 kmph and the Bangalore to Mysore portion would take as little as 30 minutes.

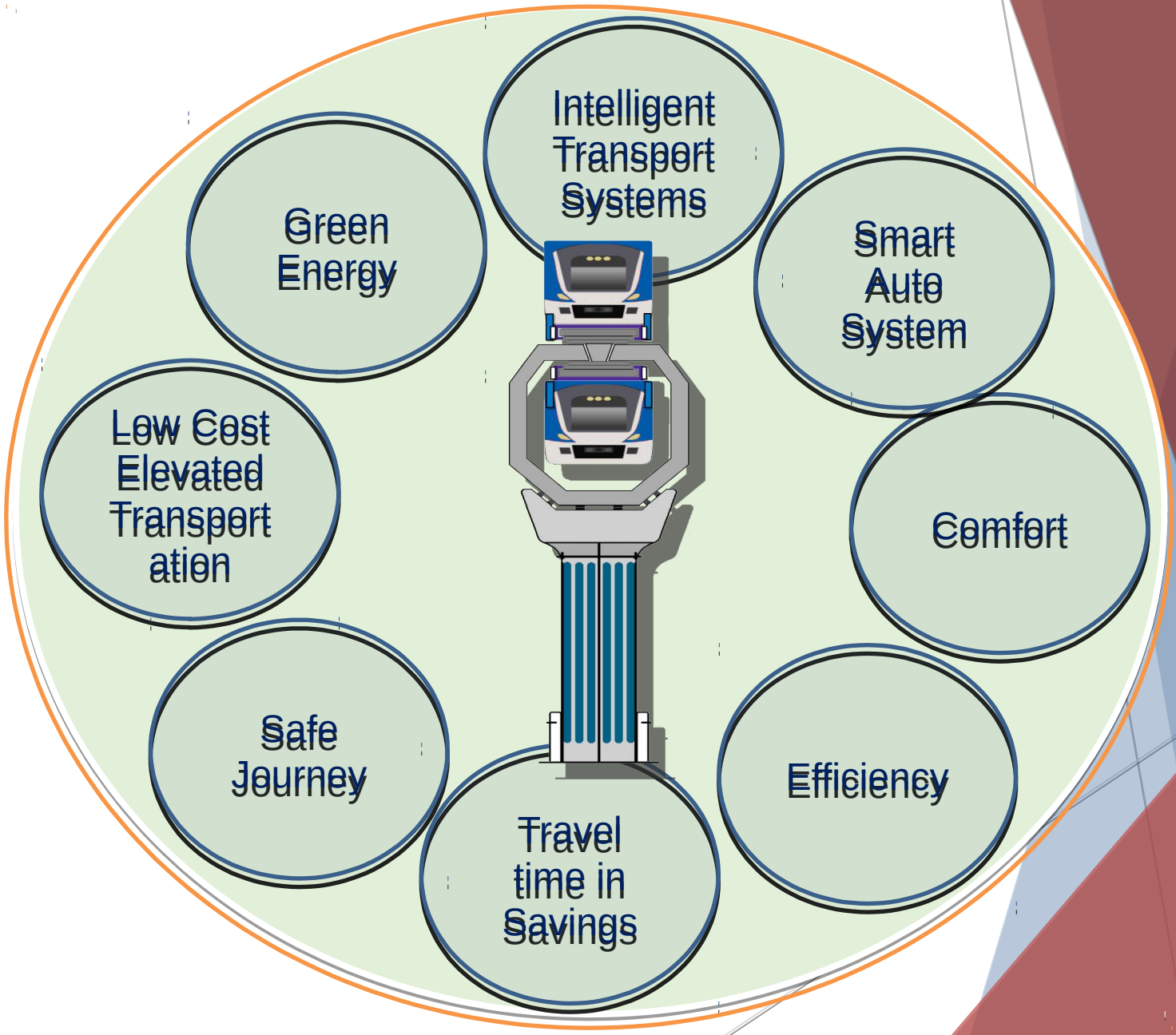
Kochi metro

Union Minister of State for Consumer Affairs, Food and Public Distribution K. V. Thomas proposed that Kochi Metro can adopt same technology as present in South Korea.

Mumbai – Delhi

A maglev line project was presented to the then Indian railway minister (Mamata Banerjee) by an American company. A line was proposed to serve between the cities of Mumbai and Delhi

IAT & Unity Infra System Presented Maglev Magnetic Double Decker System



Efficiency

Rail	Speed	Safety	Pollution	Energy
MAGLEV	High Speed	High Safety	No Pollution	Low Energy Consumption
Metro rail	Good Speed	Derailment hazard	Less Pollution	High Energy Consumption
Monorail	Good Speed	Accident possible	Less Pollution	High Energy Consumption
Trams	Minimum speed	Accident possible	Pollution	High Energy Consumption

Horizontal Curve Radius

Recommended Minimum Horizontal Curve Radius (feet)	feet
Bus, Bus Rapid Transit, Commuter Bus	30
Streetcar Rail	60
Light Rail	80
Maglev Rail	200
Monorail / Automated Guideway	230

The History Of Maximum Speed Record By A Trial Run, In Chronological Order:

1971 - West Germany - Prinzipfahrzeug - 90 km/h, **1971** - West Germany -[[TR-02]] ([[TSST]])- 164 km/h, **1972** - Japan - ML100 - 60 km/h - (manned), **1973** - West Germany - TR04 - 250 (manned),**1974** - West Germany - EET-01 - 230 km/h (unmanned) ,**1975** - West Germany - [[Komet]] - 401 km/h (by steam rocket propulsion, unmanned) , **1978** - Japan - [[HSST]]-02 - 110 km/h (manned), **1979** - Japan-ML-500R - 504 km/h (unmanned) It succeeds in operation over 500km/h for the first time in the world., **1979** - Japan -ML-500R- 517 km/h (unmanned), **1987** - West Germany - TR06 - 406 km/h (manned), **1987** - Japan - MLU001 - 400 km/h (manned), 1988 - West Germany - TR-06 - 412 km/h (manned), **1989** - West Germany - TR-07 - 436 km/h (manned)?,**1993** - Germany - TR-07 - 450 km/h (manned), **1994** - Japan - MLU002N - 431 km/h (unmanned),**1997** - Japan - MLX01 - 531 km/h (manned), **1997** - Japan - MLX01 - 550 km/h (unmanned),**1999** - Japan - MLX01 - 548 km/h (unmanned),**1999** - Japan - MLX01 - 552 km/h (manned/five formation). Guinness World Records authorization.,**2003** - Germany / China - TR-08 - 501 km/h (manned), **2003** - Japan - MLX01 - 581 km/h (manned/three formation) Guinness World Records authorization., **2015** - Japan - LO - 590 km/h (manned) Guinness World Records authorization.,**2015** - Japan - LO - 603 km/h (manned).

Light Rail Compression

	METRORAIL	MONORAIL	MAGLEV RAIL
Rails	Two standard gauge track	Two lines	Single guideway track
Construction time	Work will completed in minimum 6 years	4years	3 years
Passengers capacity per hour	4520	3390	4000
Suitability	Open area having no sharp curve	Congested areas having sharp curve	Congested areas having sharp curve
Turning radius	More area	Less area	Less area
coach	4	3	2
Safety	Derailment hazard	callousing Hazard	safest
Ticket price	10-40 rs	5-17 rs	Future 10-28 rs
Seating	Longitude	Longitude	Longitude
Time frequency Peak hours	6 minute	6 minute	3 minute
Average speed	100km/h	65km/h	40-350km/h

crowded area	Metro rail is it not possible in congested area	Monorail is possible in congested area	MMDRTS It can be put up in any congested area Solution is to provide improved city transportation
Axle load	16t	12.5 t	There is no axle load on small span of track Floats about 1-10 cm
Station land	50*40 meters	50*24 meters	40*20 meters
platform	Two side	Two side	Single side
Rail body	Stainless steel	Aluminium	Stainless steel
Ticket price	Rs 10-30	Rs8-20	10-28
Wheel		Tyres climbing the corridor	No Mechanical Contact With Rails
Substation 4 station		110 KV and 66 KV.	(1~ 110 kV 16,7 Hz), Substation
Power Per Day	70MW	30MW	10 MW

Space occupied	More compared to monorail, maglev	Less compared to metro rail	Less compared to monorail
Door	4	4	4
cabin	3.7*12*6 cabin	2.7*12.5*4 cabin	2.7*12.5*2 cabin
Driver	Need driver	Driver less	Driver less
Gap between platform	Minimum gap	Minimum gap	Surface floor level
Emergency	No provide	No provide	Balloon ladder
Emergency exit	Walking on the track	No provide	Front & back glass is door in front of revisable another system is pick up the passengers
Reliability	Good	Good	Good
Wheel chairs	Possibilities	Possibilities	Possibilities
Elevated	Only travelled in standard gauge track	Only travelled in track	Elevated and road also parked our passengers cabin
Energy supply	Substation 20 kV	Substation 15 kV	Substation 15 kV
Traction energy	62,2 GWh/a	44,1 GWh/a	44,1 GWh/a

Technology

Rail	Seating	Standing	Passengers	Cabin	Passengers Peak Hours	Peak Hours	Per Hour Trips	Passengers Peak One Hours	Power Consumption
Metro rail Seat in each coach	48	65	113	4	452	6	10	4520	Heavy
Monorail Seat in each coach	48	65	113	3	339	6	10	3390	Normal
Maglev MMDDTS Seat in each coach	35	65	100	2	200	3	20	4000	Very low

Minimum and Recommended Maximum Gradients

Maximum Recommended Gradient (%)	Minimum Gradient (%)	Maximum Recommended Gradient (%)
Heavy Rail, Light Rail, Streetcar Rail	0%	4%
Maglev Rail	0%	10%
Monorail / Automated Guideway	0%	8%

Investment of 50 Km Cost

50 Km Cost	Investment	Material Cost	Fabrication Cost	Others	Project Complete
Metro Elevated	280*50=14,000,00,00,000	55%	30%	15%	6YEARS
Monorail	160*50= 8,000,00,00,000	55%	30%	15%	4yers
Maglev Double Decker	120*50= 6000,00,00,000	55%	30%	15%	3years

Ticket fare

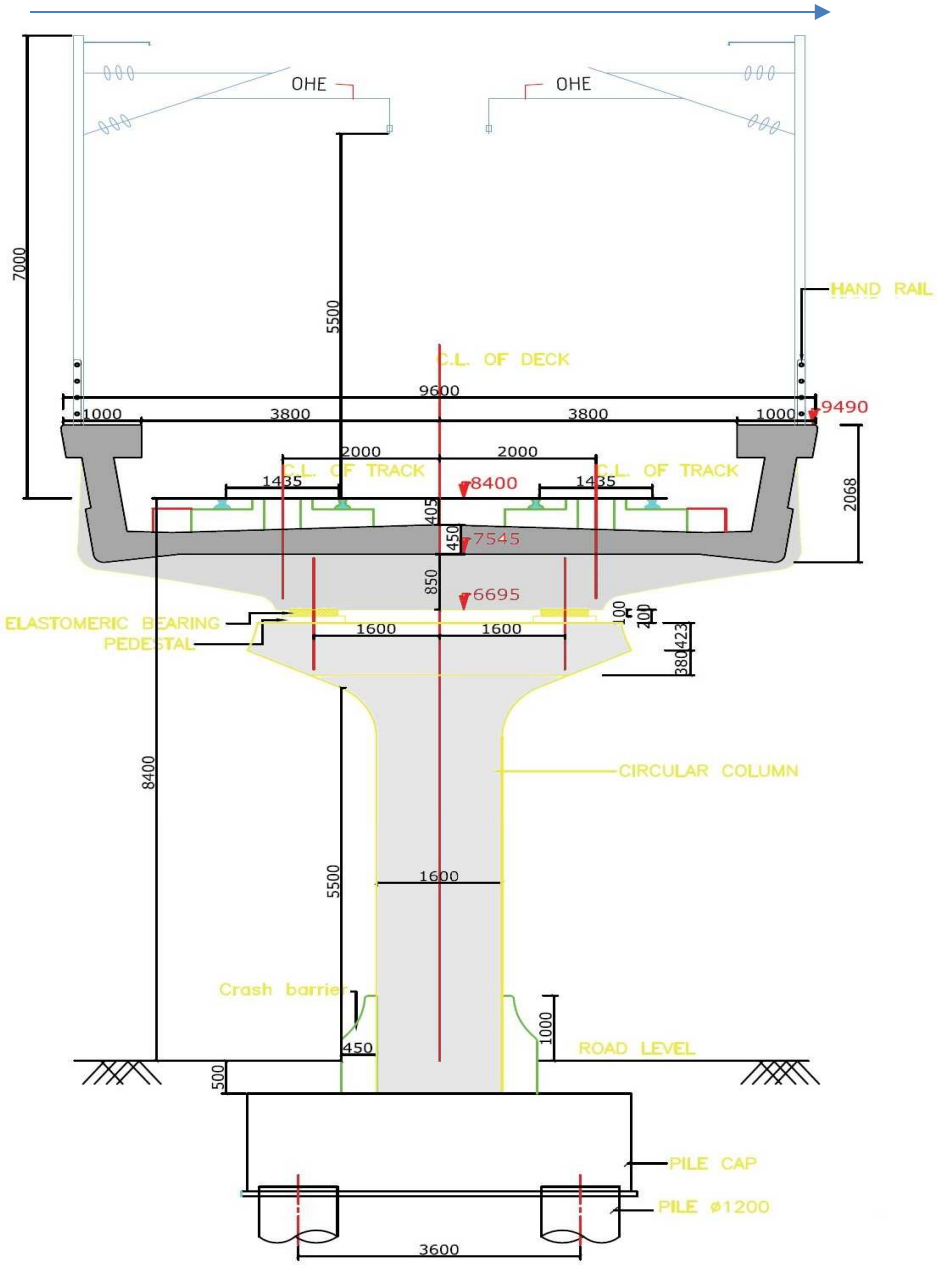
KM	METRO	MONORAIL	BUS Current fare	MRTS	MMDDTS 2019
0-2	10	0-5	3	5	10.00
2-4	10	5-7	4	5	12.00
4-6	20	5-7	5	5	15.00
6-9	20	10-15	5	8	18.00
9-12	30	1015	7	8	20.00
12-15	40	12-15	8	8	22.00
15-17	40	12-15	10	10	25.00
17-22			13	11	28.00
22-			13	12	28.00

Metro rail Technical Comparison

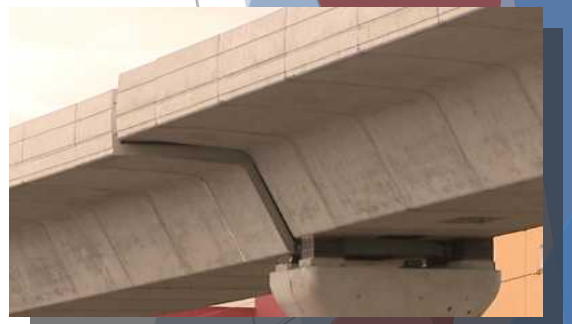
“This is a slightly different span than the other spans down North Road,” said Farrel.

“The spacing between the column and the guideway is a little bit greater than it is on other spans, and therefore has this concrete spacer, which we think might may have failed. (It) is somewhat unique on this span.”

Engineers replaced the failed spacer with a temporary metal spacer. This will be replaced with a permanent concrete spacer.



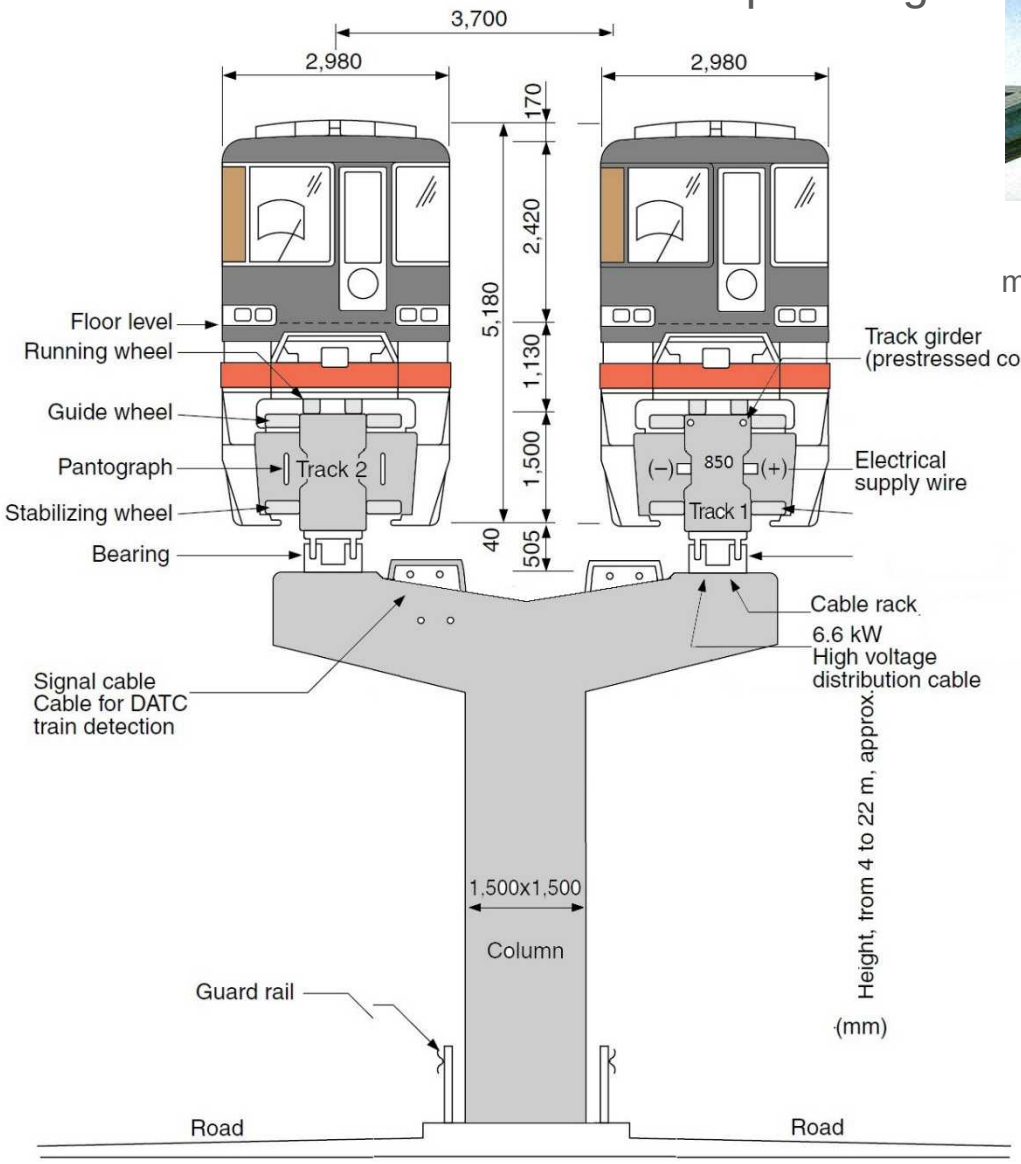
10 meters span flying road it is happened in earth quake possible collapsed whole Metro Rail mid span



We’ve heard questions for months from our viewers about rail pillars and spans that look off-kilter, even cracked. HART said not to worry, it would all be lined up later and broken pieces replaced.

Monorail Technical Comparison

8170 meters it normal span length



It is possible in monorail infra-structure

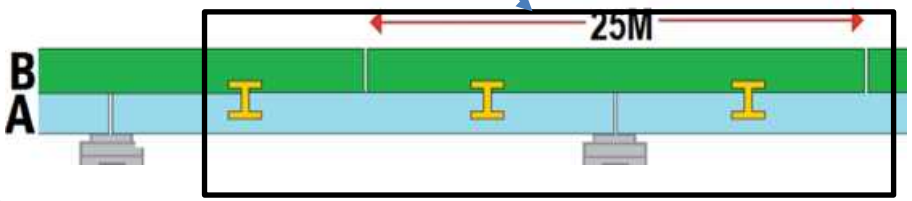
The accident, which happened early Sunday, killed one person and injured several others. The victim was 21-year-old monorail driver, Austin Wuennenberg, but Disney officials remained mum on his employment history or information about the monorail itself.

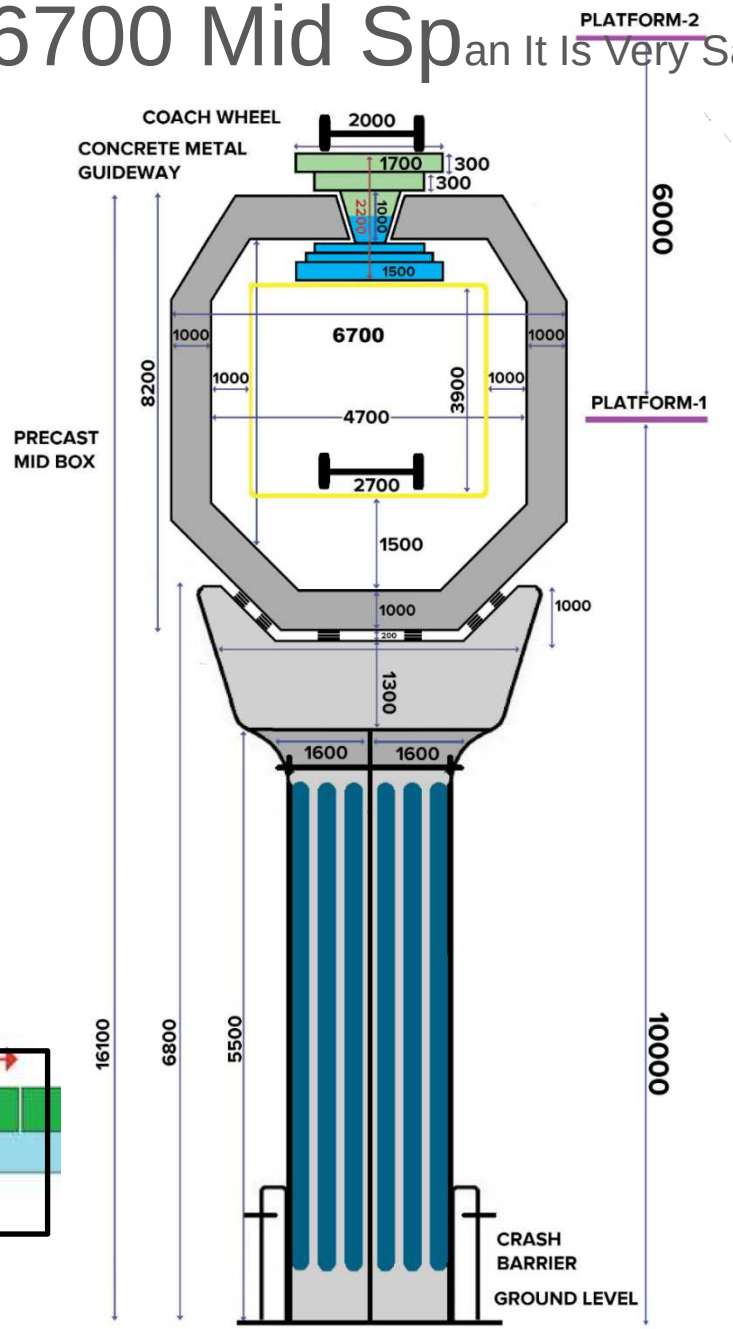
One of the two monorail curved guide-way beams collapsed during erection work, in the suburban Chembur area. What went wrong? After all, the whole team working on the job were a competent lot-whether it is the project management

Monorail Technical Comparison

6700 Mid Span It Is Very Safety

Every 25 meters each pillars and pier heads have a minimum clearance of 25 m above the road level. Guideway is divided in two parts A&B, A part of the guideway is seated in 50% of the top middle centre of both pillar, and part B of the guideway length is seated in middle of the A pillar centre point .





Sri Rangam Rajagopuram look like our technology will live take a huge leap forward in 1000 years

No need huge pillar and guideway

Accident

One monorail crashed into the back of another at Walt Disney World early this morning, killing one driver and shaking up a family of six. According to the park's statement, "Today we mourn the loss of our fellow cast member. Our hearts go out to his family and to those who have lost a friend and co-worker. "The monorail, according to a report by CNN, was shut down,

Published on May 4, 2013
On February 4, 1977, an elevated train crashed at Lake & Wabash in Chicago. At least 12 persons were killed and more than 180 injured as four cars of the train toppled from elevated tracks and plunged to the street below during the evening rush hour. The dead and injured included pedestrians who were crushed beneath cars that slammed to the pavement. This is a special report from ABC News in Chicago.

'Human error 'The maintenance vehicle hit by the train had two crew members

Deadly Crash On German Monorail

The train, which floats on a monorail via a magnetic levitation system called maglev, was going at nearly 200km/h (120 mph) when it crashed near Lathan. Damaged carriages were left balancing on track 5m (16ft) in the air, hampering

Emergencies Exit

MMDDTS

The vehicle e will control any irregularities or emergencies on the guideway and bring the vehicle to a stop if needed. Special air balloon step down walking ladder fix in vehicle emergency exit box,

MONORAIL

The no action provide emergences exit way

METRO RAIL TRACK

Passengers evacuated from a train after it got stuck during peak hours due to technical glitch on passengers walking on the track

INR & $ approximately calculated

Cost Estimate	INR	$
Total project Cost without tax	31,392,957,600.00	$470,000,000
Details of Taxes and Duties	6,778,639,900	$10,1383,373
Contingencies @ 3 %	941,788,728.00	$14,253,867
After the completion the project expenses	136,080,000.00	$2,059,096
After the completion the project revenue	2,759,400,000.00	$41,757,446
Advertisement Revenue	2,880,000	$43,586
ATM space in station Revenue	6,480,000.00	$98,069
Shops	6,480,000.00	$98,069
Admin executive’s expenses	13,737,600	$207,935

Principal Shareholders

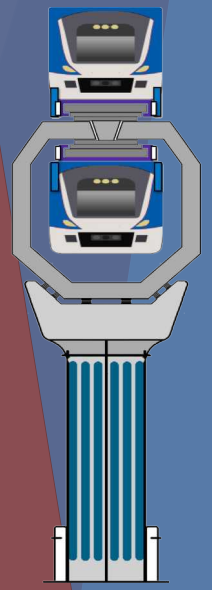
CEO Walter J. Neumann And Founder, Development Engineer CTO Mr. Dieter Schramek of the IAT MAGLEV TEAM. The technology is from “IAT –INNOVATIVE ACCESS TEAM (IAT-MAGLEV) –Germany”, patent rights holders for the “Maglev Double Decker Monorail” System, led by Mr. Walter J. Neumann and Mr. Dieter Schramek.

We are grateful to Innovative Access Team NRW from Germany for signing the MOU with us and cooperate in this green project implementation.

Mr. Walter J. Neumann
CEOIAT-INNOVATIVE ACESS TEAM

Mr. Dieter Schramek
CTOIAT-INNOVATIVE ACESS TEAM

M MEMBERS



Maglev Magnetic Double Decker Monorail based entity focused on zero-emission, self sustaining operations, with core competencies in urban planning, passenger transportation, and smart growth. With the support of world-class strategic partners, IAT has the potential to spawn a new, global high-tech industry with compelling appeal from both a financial and environmental perspective.

IAT will provide a royalty perpetual license of its proprietary technology to Unity Infra Transit Project Implementers for such equity rights. All assets, infrastructure, marketing agreements, leases and easements will remain the property.

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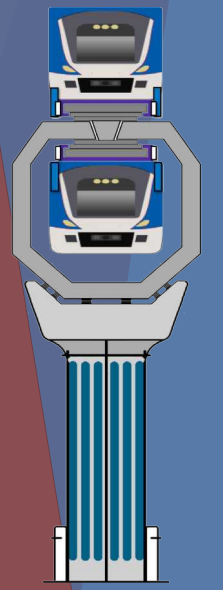
INNOVATIVE ACCESS TEAM



Thank you!

Unity Infra Transit Project Implementers