

A REVIEW FOR PROPOSAL FOR SMART RAILWAY STATION AT VADODARA JUNCTION

¹Bhavesh s Sonavane, ²Khushbu Bhatt, ³Siddharth Gupte,

¹Civil Engineering, ¹Parul Institute Of Engineering and Technology, Vadodara, Gujarat, India

Abstract: Railway has become a major transportation means for distribution of goods and people. Advanced technologies is one of the major factors accelerating the development of Indian economy and ensuring the engine of economic growth allowing for a high added value and economic development the railway transport sector invests in advanced technologies to ensure safety, environmental friendliness, energy efficiency, competitiveness, and a high level of customer-oriented service quality. The abstract briefly provides advanced technologies concepts and usage areas and significance, provides the advanced technologies features to the Indian railways. In Vadodara railway station (Gujarat, India), Indian Railways is the largest rail network in Asia with approximately 8,000 railway stations, 108,700 km rail kms, and 11,000 trains running daily and over \$26 billion in revenues. It is responsible for rail transport in India. In financial year 2015-16, Indian Railways carried over 8 billion passengers and over 1.1 billion tons of freight. Indian Railways is one of the largest employer in the world and had approximately 1.33 million employees on its rolls.

Index Terms - smart transportation, smart railways station, efficient and advance technology in railway station.

I. INTRODUCTION

The Indian Railways is the single-largest State-owned commercial entity in the entire world, and adaptability is pivotal to its survival in contemporary times. Over the past couple of years, a number of schemes have been initiated, all of which take a step forward riding the Digital Wave. From the time of Britishers, Railways came to adopt new techniques for the comfortable and till now so many facilities are used by passengers. Vadodara railway station (Gujarat, India) so many facilities are available from past years but as it been use by passengers it become necessary to improve the facilities provided and new way of giving comfort and level of services to users, the need of modernization is in the peaks of digital era. The Indian Railways is one of the largest railway systems in the world and continues to be one of the main vehicles for the socio-economic development of the country. According to an article by Press Information Bureau of Government of India, a rail system is 6 times more energy efficient and 4 times more economical than a road system. Rail construction costs are approximately 6 times lower than road construction costs for comparable levels of traffic.

II. Literature Review

John Zacharias, Boshen Tang “Choosing between stairs and escalators in China: The impact of location, height and pedestrian volume” Preventive Medicine Reports 2 (2015) 529–532 The literature suggests that in China follows urbanization as it did in the West. However, there are also reasons and evidence why environment may prevail over widely exhibited behaviors in a particular population. With regard to differences across cultural contexts, do separation of stairway and escalator to the same destination, height of the stairway climb and overall pedestrian volume have the same effects on stair climbing Methods To replicate the conditions of the Montréal study, an exhaustive search of locations in central Beijing was undertaken, As in the previous study, 5-minute counts were conducted simultaneously or in immediate succession, between 10 a.m. and 5 p.m., with counts conducted to represent variable overall pedestrian flow at each location in the middle of the day. Counts at individual locations were conducted simultaneously, with two and three successive counts conducted at locations the researchers used counting device to use passengers count.

Shin Ye-Kyeong Jung, Hye-Jin “New Spatial Possibilities of Railway Station: Everyday Heritage Enjoyable Landscape “Procedia Engineering 118 (2015) 377 – 383 The construction of railway station occupied the city partially influenced the urban space. The importance of the railway station is one of the most industrial structures located in the center of the city supporting the city function as a complex facility. Furthermore, they referred to the railway station the possibility as a city facility among the typical facilities being decided by the function as a school, museum, library, City Hall or factory. From recent projects, such as Japan’s Tokyo Station Restoration project, and Bussan’s Integrated Regeneration of the old harbor project, railway station, Thus, this study applies recent cases occurred in geographically various locations such as Tokyo Station, Paris Gere du Nord, the High line Project, and Bussan Station. Through the railway stations appearing modern facilities which can be utilize as enjoyable place.

Indraswari Kusumaningtyas, Jan Carel Para, “Accelerating Moving Walkways for Quality People Transport in Airports: An Assessment of Their Applicability in Amsterdam Airport - Association for European Transport and contributors 2007.

This practice has enabled airlines to offer more the transfer time consists of a Minimum Connecting Time, in most cases, a waiting time. Time required to allow passengers and baggage to transfer from one flight to another as well as to terminal building. The increase in walking distances due to airport expansions may cause to delay for flight. Same as in railway station, to achieve acceptable walking we can provide moving walkways, innovative systems with higher transport speed have been developed. These systems are generally known as Accelerating Moving Walkways. This system can be apply in railway station facilities as it has simple but energy efficient working capacity which can be used by disabled people.

Aldona Jarašūnienė “Advanced Technologies Used by Lithuanian Railways “- Elsevier Advanced technologies is a new concept and a very important area for the cargo transportation process. Advanced technologies is usually described as the cargo process managed online when problems are identified quickly and removed before the customer notices. They are also defined as information and communication technologies application in the field of transport. The main goal of this research is to create a modern, sustainable, safe, connected, competitive, and environmentally friendly railway system that effectively satisfies the needs of both businesses and residents.

Md. Imran Khan, Saad Bin Siddique “Automated Luggage Carrying System - American Journal of Engineering Research (AJER) e-ISSN: 2320-0847 p-ISSN: 2320-0936 Volume-02, Issue-11. The desired automated system, a six wheel based Integument personal luggage carrying system can add comfort to the explorer inside an infrastructure possibly in railways after the airport. The system consists of automated vehicles that can be borrowed and it automatically follows the borrower inside an infrastructure with luggage. In this thesis we have identified the basic construction required for the six wheels based rigid robot body and the basic person. The automated system will always keep 2mitre distance from the user with a view to avoiding clashes with the user. This is very needful on railway station as it is people friendly and easy to use.

Amit Kumar Gupta, Priyanka Ahlawat Mann “Railway Train Ticket Generation through ATM Machine: A Business Application for Indian Railways” - International Journal of Computer Applications (0975 – 8887) Volume 22– No.7, May 2011 The reservation of railway tickets in India is done through by either of the two alternatives. The first one is that the individual himself goes to the counter opened by the Indian Railways and book the advance ticket. Now here we are talking about an application which can be very useful for common people. We can use ATM for booking railway tickets besides withdrawing money. We can use ATM for booking railway tickets besides withdrawing money. In this process first of all we insert our ATM card on the machine and insert our pin code in it. After inserting the ATM pin, we can perform according to our wish as indicated in the screen. As we enter ATM pin there would be options in screen: i) Banking & ii) Railway Reservation or Railway Ticket. Now we can choose from the two options aforementioned. If the customer wants banking, he can click to the Banking option and proceed further. If the customer wants to book ticket, then one has to click the “ticket booking” option.

III. CONCLUSION

From past years the buildings of railway stations are became poor and outdated facilities. By applying new infrastructure with modern facilities will help users for a new level of comfort. Therefore escalators, moving walkways, automatic luggage caring system, on time guidance and commercial plaza etc. Will become the main corridor to the users for satisfaction against the problem.

IV. ACKNOWLEDGMENT

The work reported in this paper is the part of the dissertation project titled “smart railway station at Vadodara A Review for Interconnectivity by Public Transportation” and the executive of the research is under supervision of prof. khushbu Bhatt. The authors also express their gratitude towards Parul university officials, especially dept. of civil engineering (PIET) for supporting at each and every phase of project.

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