

Literature review on planning proposal for parking facility: Parul University, Vadodara

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Abstract— Parking on Parul university campus has long been a difficult proposition. Rising student enrolment and the necessary additional faculty and support staff have increased demand for parking. Projected campus population growth will only exacerbate the problem. The increasing number of private vehicles in campus has been inducing detrimental effects on the campus in terms of increase in traffic congestion, lack of park space, damaging vehicles and form long queue on the road, and parking lots facility is very far from the all department so that it is taken more time to reached destination. The purpose of this paper is the parking utilization pattern at the park and ride facility and the factors influencing the demand for the park facility based on data from literature review. The analysis includes determining methods of parking lots design and manages to available space in campus and given proposal to management of the department.

Keywords— parking lots design; planning; ITS system; parking space

I. LITERATURE SEARCH

Parking Management Blueprints For Rajkot-Solution To Urban Transport Problems Meet k Hingrajia and Pratik D Vagadia (sept 2015) studied the most vehicles are parked for very short durations during the peak hours because of trading areas. The area is also linked different important destinations of trading and commercial centers so traffic flow is obstructed because of existing on street parking facilities. Results in delay and waste of time occur for long trips. To prevent these delays and to best utilize space available in the area multistory parking or Roof parking are the solutions

Jaydipsinh P.Chudasama,Dr.L.B.Zala(2012) Parking evaluation: A Case Study of Amul Dairy road Anand;In his paper authors discussed on The study includes detail of volume and parking data analysis for the study section. The study section was a commercial hub of Anand city. Data was collected both primary and secondary sources. Primary data collected by performing surveys of study area and secondary data were one's that were collected from secondary sources without performing survey. They conducted four types of field survey traffic volume count survey, parking space inventory survey, land use survey and parking survey. Volume count survey done with vediorecording method and parking survey done used number plate registration technique.data was collected than they analysis and given the conclusion

Prof. Deepak Tiwari, Dr. Supriti Dubey(2013) “ A study of Bhopal with reference to Car Users satisfaction for Parking Space and Accessibility to the Market”In his paper he had conclude that during weekends and festive seasons the demand for parking of vehicles exceeds the supply and thus causes a negative impact on retailer's sale and not only this, it causes severe dissatisfaction while going for shopping. This paper studies the different aspects of external variables which effects the shopper's satisfaction for shopping. The study is descriptive in nature and a self-designed questionnaire was used to collect the primary insight. In an on street questionnaire, the retailers and consumers were asked their opinion about commutation in the market area that can be made easily by i) existing policy, ii) parking maximums, iii) remote parking iv) different parking pricing v) multilevel parking Present study is an attempt to explore the issues related to parameters mentioned above. The questionnaires are developed for primary data collection and secondary is collected through books, journals and net surfing This is a survey work to find the solution of the problems in designing an optimal parking space. parking management and accessibility to the market and their related factors are variable of shopping satisfaction to the different shoppers from different market. The data which was collected by questionnaires is processed through SPSS. In this study variables are considered to determine the level of shopping satisfaction among shoppers of Bhopal city. Parking space management is comparatively less in Old Bhopal as compared to New Bhopal. And he suggest the multilevel parking would be better option .The relationship between various factors of shopping satisfaction with the overall satisfaction shows that there is less positive overall satisfaction in the shopper

Mrs Priyanka. Kolhar(2012)Off-Street Parking Management Plan For Dharwad city, Karnataka, India ;In this paper

Author investigated parking practise with the parking accumulation and supply survey. Parking demand models were developed with the help of SPSS software. She had done three types of survey parking space survey, accumulation survey she used registration plate method. Interview designed for willingness to pay analysis. The study of parking duration analysis suggests that short duration parking is high. Hence, parking turn-over is high causing congestion on the streets. To reduce this, heavy parking fee is to be levied on the short duration parking vehicles. To solve the parking problems immediately short-term solution can be adopted with congestion pricing as, operation and maintenance cost is very much less for on-street parking management rather than off-street and even IRR is high in on-street parking. But, based on the future parking demand in the study areas long term management plan (provision of multi-level parking) is preferred.

Jun Chen, Hui zhang, (2011) Coordinated Layout Programming of Urban On-street and Off-street Parking Facilities “authors studied to optimize the layout programming of urban parking facilities, this paper firstly analysed the characteristics of on-street and off-street parking facilities. Secondly, they established on-street and off-street parking

layout models respectively with the target of minimizing walking distances from parking spaces to drivers’ destination with corresponding restrictions combined to set up the coordinated layout model. Finally, a case was demonstrated to prove the manoeuvrability of the method. They conclude distinct discrepancies exist between on-street and off-street parking demands and are presence of parking durations, parking factors considered by parkers and impacts on road traffic flows. On-street and off-street parking locating models are established to satisfy the demands of short-term and long-term parking respectively. Parameters such as the upper limit of walking distance and impacts on road traffic flows are used to meet the different parking requirements of parkers and traffic flows.

Eduardo Barata (2010) have done Parking problems at the UC Campus: Setting the research agenda; This study underscores the importance of adopting integrated parking management policies that ensure not only more rational use of the available parking spaces, evenly balancing supply and demand and bringing in revenues to cover the parking facilities costs, but also the improved attractiveness of alternative transportation modes.

Parking supply and demand flows within the UC campus are estimated. The results indicate that the parking facility is underpriced and that there is overcrowding. To reflect critically on these issues and identify research areas to address their socio-economic implications, some policy proposals theoretically-engaged but pragmatically-oriented.

Juliane Stark, Roman Klementsitz (2008) “Off-Street Parking Regulations For Shopping Facilities: Potential Impacts and Scope of Implementation” “In his paper authors discussed on the implementation of off-street parking regulations and their contribution to a reduction in private car traffic outside of the study area. She had conducted effectiveness and acceptance of such “new” instruments based on results of stated preference survey, as well as gave recommendations for the implementation of results of an efficiency analysis conducted for the area of Vienna, Niederösterreich, and Burgenland in Austria. They used the method of analysing elasticities of off street parking measure. a stated preference was carried out via telephone this survey they derived the subjective reason of car drivers with trip purpose shopping for the car use. Then they were carried out waiting time survey for the limiting the capacity of car parking of shopping facilities, then they analyzed they decided to parking fees for the user of the car park of shopping facility.

Marcello Marinho Berenger Vianna (2004) Intelligent transportation systems and parking management: implementation potential in a Brazilian city; The problems arising from the gap between demand and supply of parking spaces are becoming increasingly acute in most towns and cities. These difficulties are noted mainly in more densely populated areas that are poorly served by public transportation facilities and where the planning and use of existing areas is inadequate. The importance of controlling parking spaces as an integral element of the traffic and trip demand management process, together with the need to ensure a close-linked conceptual approach, has been defined and defended for quite some time. This paper presents a methodological procedure that underpins the feasibility of implementing an integrated parking system based on telematics resources. This procedure includes the development of a logic architecture for processing and transferring data and information. In order to test the proposed procedure, a medium-sized Brazilian town in the Rio de Janeiro Metropolitan Region—Niterói—was considered. A specific survey area covering some two square kilometres with a significant number of parking facilities was selected for the analysis. The results expected through the implementation of the proposed system indicate that the resulting benefits would include possibly lower levels of traffic congestion in the area under consideration, while also reducing air pollution.

Robert Deacon and Jon Sonstelie (1991). Consumers choose the size of purchases to minimize the total cost of shopping for an underpriced good, which includes shopping and storage costs. The waiting time in a queue increases until the market clears. The authors note that consumers are no better off from a price ceiling, though suppliers are worse off, thus generating a deadweight loss in rationing by waiting. (See also Deacon & Sonstelie [1985, 1989] and Deacon [1994].)

II. Conclusion

As we know that parking is a very common problem in everywhere with the phenomenal increase in personalized motor vehicles, one of the major problems confronted by the motorists is the acute shortage of parking space. The demand for parking has increased in alarming proportion in central Business District areas and other/activity centres of the cities. The provision of multilevel parking and their effective use emerges as the most viable initiative in the cities. Proper parking manage reduce the congestion on the road.

The improvement of parking conditions has a direct impact not only on the improvement of traffic conditions and road safety in the area considered, but also on the local economy. Consequently, the use of quantified results from the proposed methodology could assist in improving the design of the appropriate parking programme for a specific area and its implementation. The switch to off-street parking, which can free valuable road space to be better exploited, improving the overall quality of life of an area, can be achieved in a more secure way if the parameters influencing this switch as well as the magnitude of their effects are known.

Different method use for parking survey like videography, telephonic survey, license plate survey, in-out survey this all survey done we can get parking parameters.

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