

IMPROVING THE EFFICIENCY OF URBAN PASSENGER TRANSPORT

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Abstract: The article examines the impact of the area on the overall economic development of the area by studying the level of development of the street and road network to improve the efficiency of urban passenger traffic. At the same time, it was tried to assess the impact of the expansion of the road network on the socio-economic stability of the country. The study examined how traffic congestion affects the activities of road users and the increase in the level of motorization.

Keywords: traffic, car, passenger, efficiency, road network, transportation.

One of the important factors determining the good performance of transport is its regularity of transportation of goods and passengers. Only when the necessary products, raw materials, spare parts, fuel are transported in a timely and regular manner their stocks in the warehouse can be kept in the minimum amount and it becomes possible to organize production without interruption. Transport, especially road transport, also plays a special role in the use and transportation of natural resources [1,2]. Without modern vehicles and developed roads, it will be difficult to use natural resources effectively.

Most of the freight turnover in the republic is for rail, automobile and pipeline transport, and passenger turnover falls on road, rail and air transport [3,4].

In the Republic of Uzbekistan, comprehensive measures are being implemented aimed at improving the system of prevention of road accidents, timely detection and elimination of offenses, with special attention paid to reducing

the number of road accidents [5].

Achieving a uniform distribution of the traffic load of the city by regions, that is, creating opportunities to control the passenger flow, introducing separate tariffs for "red", "yellow", "green" zones, making the fare more expensive in the central part of the city and cheaper away from the center, passenger transportation through the introduction of the most efficient high-speed bus (TAY) system to the passenger traffic routes, Preventing traffic congestion entails an increase in the efficiency of traffic flow management [6]. It is observed that the quality of roads, the infrastructure of cities and districts does not fully meet the requirements of reliable road safety, the necessary conditions for the safe movement of action participants are not fully created.

With the population of Namangan during 2020-2024 increasing by 68,6 thousand units, the number of vehicles during this period increased by 28,42 thousand units. That is, there was an increase in the number of inhabitants by 11 percent and the number of vehicles by 113 percent [7]. Also, in January-December 2024, 343.1 million vehicles were transported by all modes of transport. This indicator increased by 102.1% compared to the corresponding period of the previous year [8].

More than 467,4 thousand passengers are transported in more than 3200 vehicles per day in Namangan. The rapid growth of the population and traffic flow in Namangan requires solving a number of problems in the transportation of inner-city passengers [4,5].

There are specific laws of passenger traffic, the mobility of the population, the scale of the city, the location of the population in relation to the main passenger and road routes, the level of development of transport stations, the regularity of traffic, fares, etc., which should be constantly studied in order to properly organize passenger traffic and fully meet the needs of the population.

Large passenger traffic in small urban areas or large transport hubs is the basis for the organization of passenger routes or directions, which together form an urban transport network. The use of a particular type of passenger transport

depends on the nature of its transportation, the amount of initial capital expenses and transportation costs. In large cities, it is advisable to use all types of passenger transport.

In order to optimize the time of arrival of a passenger to the destination, it is necessary to separately study all factors affecting him, such as the time the passenger spent on the road from home to the stop, the waiting time for transport at the stop, the time of travel by transport, the time of re-exit in other transport, the time from stop to the destination, the travel time and the parameters affecting them.

Optimizing, monitoring and tracking traffic is a very important function in the transportation industry. Many factors take into account, such as the width of the road, average speed, etc. One of the main tasks to be solved in the field of geoinformation technology (GAT) is the preparation of a transportation plan taking into account the safety and time of passenger transportation (Figure 1).

One of the most important areas of activity with the application of GAT is operational work related to motion control. The use of GAT is a universal technology for working with spatial data. Different modes of transport have their own specific tasks that can be solved more efficiently using GAT. Some of them are: in road transport - planning; design; construction; exploitation; traffic monitoring, collection of statistical data on the operation of the subordinate road network, analysis of accidents.

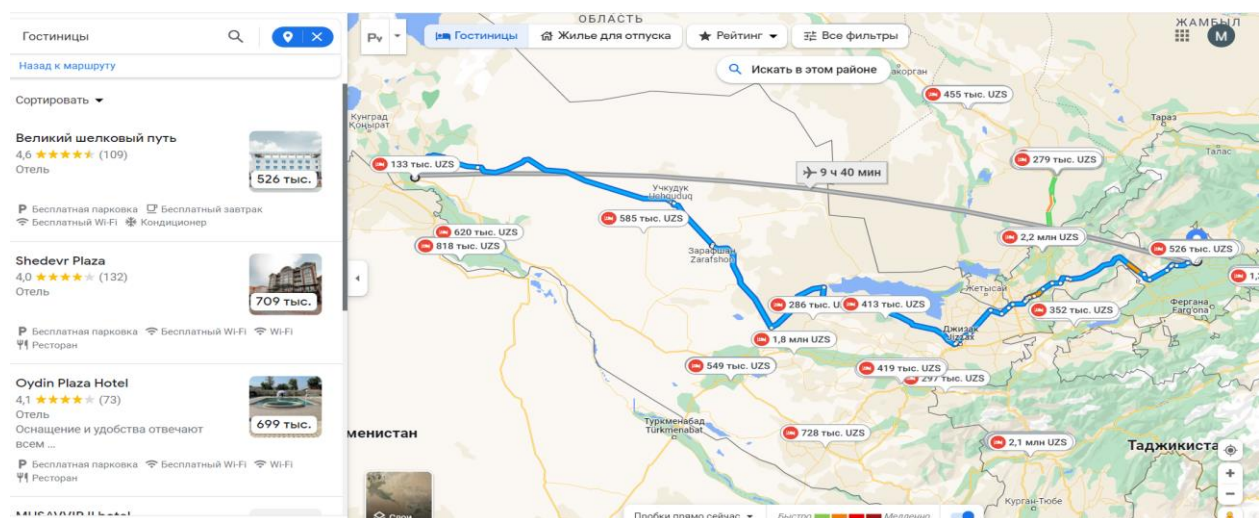


Figure 1. Itinerary with a choice of available hotels, their location, and limited terms such as area or accommodation prices

In this regard, it is aimed to study the modern trends of the market of intracity passenger buses and to develop the infrastructure of transportation of fast city buses on the basis of the analyzes. To do this, the ever-increasing urban traffic only adds to the situation.

As you know, when traffic jams occur, road users get nervous, tired and nervous. This has a negative impact on the accident rate. Increasing levels of motorization will have an impact on traffic.

A street and road network is the sum total of streets and roads in a city's uniform transportation system. The road network, geometric and structural parameters of the city in many respects depend on certain factors, such as population density, urban planning structure, the composition of traffic flow, the level of traffic congestion on the road network sections and, as a result, a decrease in the speed of vehicles on these sections, the concentration and distribution of pedestrian traffic.

In fact, it was necessary to adapt not only the old buildings, but also the new ones to the existing street networks. First of all, the fronts of not only shops and shopping centers, but also residential buildings were turned onto the streets. This situation again served as a source of traffic disputes between cars and people.

The process of changing street functions is very specific to cities in North America and Western Europe. As a result of the increase in the number of individual vehicles in Gratz (Austria) in the 60s and 70s, 28% of the tram lines were provided and a significant part of the corridors were used for parking. In the current situation, the risk of pedestrian and bicycle traffic has increased.

Due to the need for environmental protection and the unacceptability of the growing conflicts, there is a need to create new solutions of urban planning. The progressive features of the formation of the Street-to-Road Network (KYT) were aimed at reducing the points of contention. As a result:

- 1) the distribution of traffic directions according to the nature of the movement, as well as the distribution of the flow of vehicles and pedestrians;
- 2) Designed for TP traffic, a high-speed street-to-road network resembles

traffic highways;

3) There is a similarity with the parameters of the highways (construction of high-speed roads passing through the city);

4) lack of communication between residential and highways;

5) Consideration of environmental regulations for the construction of the street and road network.

The transport system of any region is one of its most important elements. The overall economic development of the area can also be assessed by monitoring the level of development of the street and road network. The expansion of the road network has a significant impact on stabilization of the socio-economic situation in the country.

Thus, the development of the transport system is one of the important factors stimulating the socio-economic development of the city and helps to reduce the occurrence of traffic congestion.

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