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STUDY OF THE VOLUME AND STRUCTURE OF TRAFFIC ON BUS AND MINIBUS ROUTES

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Abstract:
In this article, the results of a study conducted on the main streets of Jizzakh, which are a mixture of cars and public transport on the main streets of Jizzakh, show that the intensity of traffic on these streets depends on the importance of the road, traffic it can be seen that they differ from each other depending on a number of factors such as composition, condition, and so on. The influence of changes in the volume and composition of traffic on changes in the speed of movement and the number of traffic accidents is analyzed.

Keywords: road network, bus, minibus, traffic accident, driver, pedestrian, environment, car, road, collision.

INTRODUCTION

After the Republic of Uzbekistan gained independence, socio-economic changes began to be implemented in our country. For example, the automobile manufacturing industry was launched, extensive changes took place in the field of road construction, and at the same time, trade relations with foreign countries began to be introduced. It should also be mentioned that as the population of the country increases year by year, the city area expands, and the need for automobile transport of the population increases. This naturally led to year-by-year increase in the amount of traffic on the republic's highways, including city highways. One of the main problems and issues facing us now and in the future is to ensure the safe movement of vehicles on the central main streets of the city, that is, to prevent traffic accidents that occur, to reduce the number of deaths and injuries, it is necessary to focus on reducing the general socio-economic damages, as well as on a number of issues that need to be resolved in terms of the development of preferential movement of city passenger vehicles and the improvement of the quality of transport services provided to the population. To date,

the total number of cars in our Republic is more than 1.3 million. In particular, there are more than 66,392 in the public sector, more than 280,229 in legal entities, and more than 1,057,687 in the private sector..

LITERATURE ANALYSIS AND METHODOLOGY

The analysis of the conducted studies shows that road fogging work K.Kh.Azizov [1], R.A.Abdurakhmanov, S.Z.Azizov [2], V.F.Babkov [3], U.Nurullayev [4, 8], O.K.Adilov [6, 7] , 18, 24, 25], I. Umirov [5], B. Begmatov [12, 13, 14, 15, 16, 17], Y. Hamrakulov [9, 10] and others. In the mountainous region of the Republic of Uzbekistan, roads are divided by height above sea level. The main criterion for fogging is the traffic safety index of cars. In the studies, the factors affecting the traffic conditions were not systematically approached and analyzed, the theoretical foundations of the traffic conditions were improved, and the criteria for the evaluation of the traffic conditions were not included.

According to the planning solution of the city's street and road network, the level of car ownership per 1000 people is a critical amount of 170-180 cars. In recent years, the level of carization in the city of Jizzakh will exceed the standard indicators, because now there are 125 cars per 1000 people. It can be seen that the traffic volume of vehicles is increasing rapidly. One of the main indicators describing the movement of vehicles and pedestrians in the organization of safe movement of cars and public transport on the main streets of the city is the amount of movement.

RESULTS

The observation method was carried out on the main streets of the city of Jizzakh, where cars and public transport are mixed, as well as on the main main streets of the city. The results of the conducted research showed that the amount of traffic on these streets depends on the importance of the road, the composition and condition of vehicles and a number of similar factors, and it can be seen that they differ from each other. Changes in the amount and composition of traffic affect the speed of movement and changes in traffic conditions. Frequent changes in the amount of traffic and its composition are observed in the strips of city streets. Currently, we can observe the increasing level of automobileization all over the world. We can see the level of automobileization of only Russia from the data presented in Table1.

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1-table Changes in the level of car production of the Russian population

Growth indicator	1991	1994	1999	2005	2020
Car production rate, passenger car per 1000 people	80	100	140	170	300
Number of cars per family, pcs	0,25	0,33	0,4	0,5	1

Of course, we can observe that this indicator is increasing not only in one country, but throughout the world. This leads to an increase in the need for parking spaces. Nowadays, we see that this has become a much bigger problem. As a result of this, it is observed that the parking places of vehicles are being created on the traffic section of the road.

It is known that this situation has a negative effect on the movement of vehicles, especially it makes it difficult for public transport, it leads to a decrease in the capacity of the road, the creation of traffic jams, and a decrease in the speed of vehicles.

If we pay attention to the amount of traffic on Independence Street, the average speed of the traffic flow is 350 - 450 vehicles per hour. This street is a 2 lane street. The change in the amount of movement is presented in Figure 1.

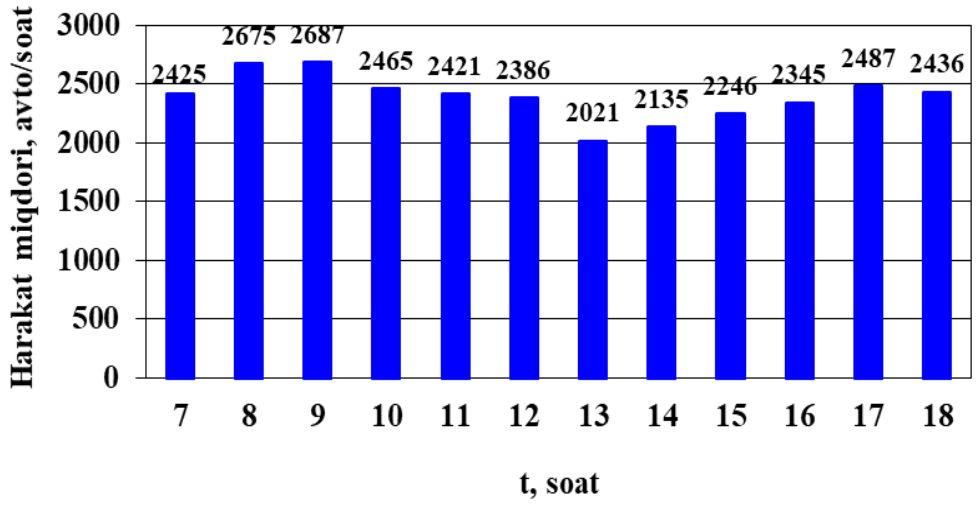

figure 1. Histogram of changes in the amount of traffic on Independence Street by hours.

According to the results of observations, the amount of traffic increases in the morning between 1100-1400 hours and decreases between 1500-1800 hours. During the rest of the day, an average of 370 vehicles/hour is observed.

The percentage share of traffic flow on this street is as follows: passenger cars make up 39.7%, buses make up 0.8%, trucks make up 0.9%, and minibuses make up 7.9%.

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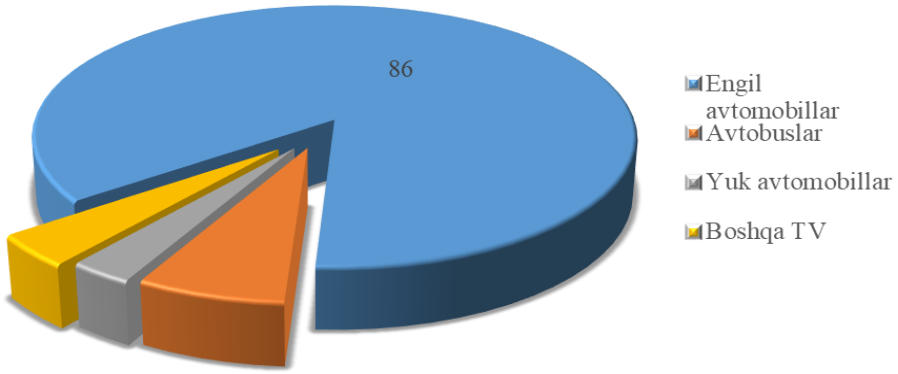

Figure 2. Cyclogram of traffic flow composition on Independence Street.

DISCUSSION

From the above analysis, we can see that the main part of the traffic flow is cars. Of course, this, in turn, leads to a sharp increase in the need for parking spaces. Currently, we know that there are not enough parking spaces, so there are many vehicles parked on the street. As a result of this, the movement of vehicles becomes difficult and traffic jams occur on the roads. As a result of this, the emission of carbon dioxide into the environment, the level of noise generation increases, which leads to irregular traffic.

Up to now, it is worth mentioning that buses and minibuses, which are public transport vehicles, play a very important role in serving passengers in big cities, as well as in the city of Jizzakh.

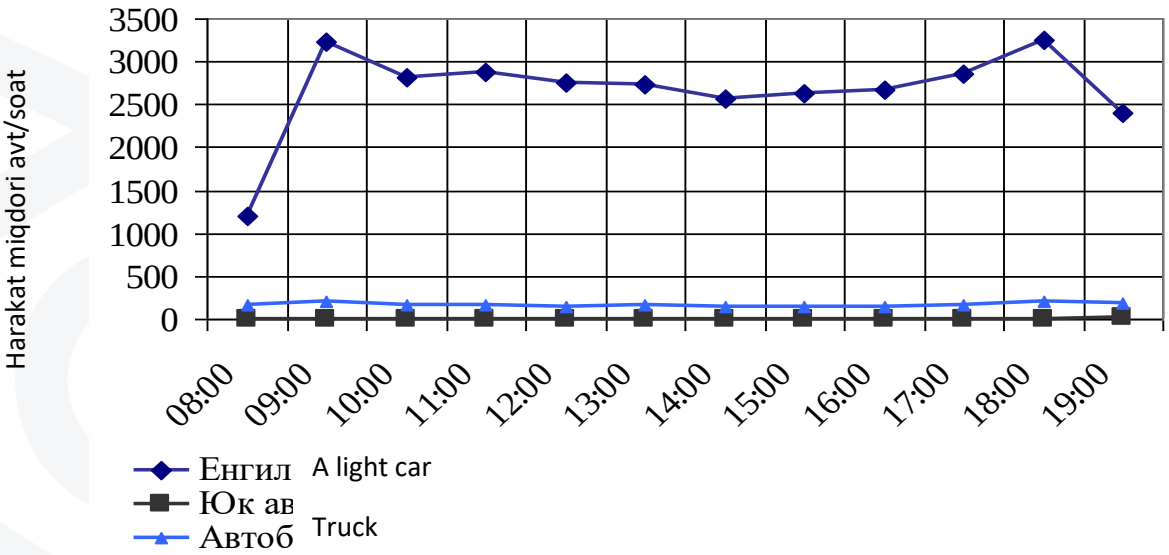

Figure 3. Movement of vehicles on Sh. Rashidov street graph of change in amount over time.

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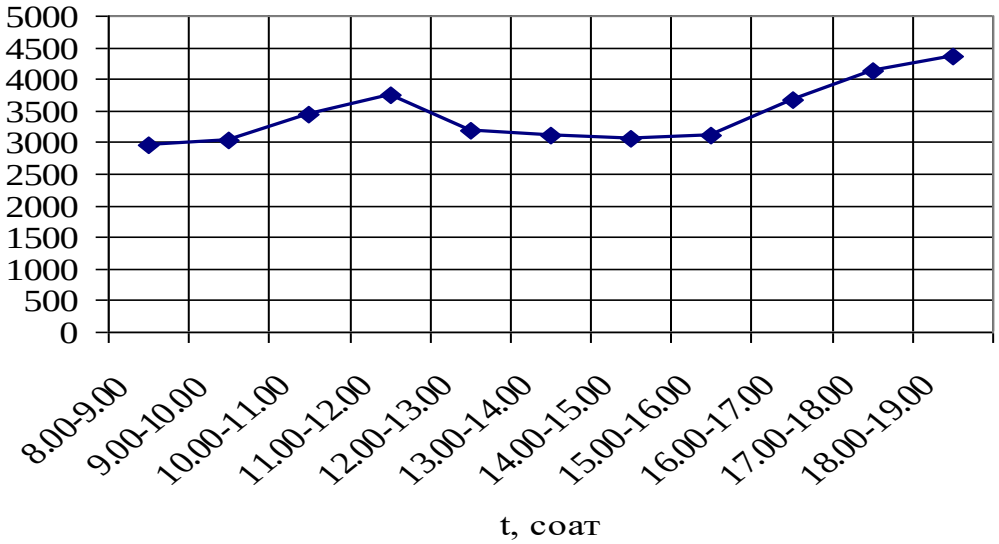
An increase in the amount of traffic on the main streets of the city, at peak times of the day, public transport vehicles are held up, especially buses, and as a result, the speed of movement decreases, in turn, the regularity of the traffic is disturbed, and passengers are waiting for time. losses are observed.



4 - picture. The graph of changes in the traffic volume of public transport on Sh. Rustaveli Street over time.

The share of public transport vehicles serving the population on the above-mentioned main streets of the city of Jizzakh in terms of gauge length during peak hours of the day is as follows: large-sized buses 36-40%, medium-sized buses 18 -20%, small-sized (micro) buses make up 42-46%. We can see this in the example of the following cyclogram form.

It can be seen from the cyclogram analysis in Figure 4 shown above that 94% of the vehicle composition is passenger cars, 3% is public transport, 46% of the 3% public transport composition is small-sized, 36% is large-sized, 18% are medium-sized buses. It can be seen that 94% of passenger cars have a negative impact on the safe movement of public transport.

It is necessary to create preferential conditions for the safe movement of public transport in the city of Jizzakh.

There are several difficulties in organizing the movement of buses and minibuses on city streets, sometimes there are no multi-lane highways, and special lanes for public vehicles or 'q; there are no equipped bus stops; organized and unorganized parking spaces on city streets; in addition, various obstacles are observed in the traffic sections (at the edges of the traffic lane), where public vehicles move, etc. [2, 5].

CONCLUSION

In conclusion, the condition and condition of city passenger transport on the main streets of Jizzakh was determined and based on a comprehensive analysis, which was based on literature sources and internet information on foreign research.

1. Changes in the characteristics of the traffic flow were determined on the main streets of the city where public transport moves.
2. The amount of traffic on the main streets of the city, where public transport moves, changes in the amount of 2500-3000 vehicles per hour in the morning "rush hours" at 800-1000 hours and in the evening at 1700-1800 hours by 2520-3050 vehicles per hour, and the traffic composition is 94 -97% passenger cars, 0.4-1.0% trucks, 1.2-4%. bus, minibuses, and 0.2-0.6% were found.
3. Accidents related to the movement of buses and minibuses in the city of Jizzakh were analyzed. According to it, it was determined that accidents related to the participation of buses and minibuses made 8%, collisions with vehicles made 2.7%, and running over pedestrians made 5.3%.
4. The speed of buses and minibuses is 45-50 km/h on straight roads, 15-20 km/h on intersections, 25-30 km/h on curved roads, in general directions It was found that the average speed is 50 km/h. It was determined that the traffic density is 36 and 48 cars, respectively, when it is 2200 and 2350 vehicles per hour, depending on the change in the amount of traffic.

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