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RESEARCH OF VARIABLE CHANGES OF VEHICLES IN THE TRAFFIC ZONE

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Abstract:
This article discusses the regulation of congestion on the streets of the city of Jizzakh, the development of measures to increase the throughput of streets, the main characteristics of traffic on the streets (volume and composition of traffic, speed and density of traffic), determine patterns of change, develop recommendations for reducing the number of traffic road traffic accidents.
It also aims to ensure the efficiency and safety of road transport, creating conditions for the movement of public transport and specially authorized vehicles to ensure traffic safety.

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

INTRODUCTION

Special attention is being paid to the development of transport infrastructure, primarily roads and railways. The implementation of the program for the development of public highways in 2007-2010 provides reliable transport connections between all regions of our republic throughout the year [1]. No matter how well-thought-out programs we create for the future development of our country, no matter what material base and opportunities we create for the implementation of these plans, no matter how many investments we mobilize for this, there is one powerful factor that will make all of them come true. it is our highly qualified labor force and our mature specialist youth who are able to take responsibility for the tomorrow and development of our country. Also, the wide introduction of new information and pedagogical technologies into the educational process, increasing our attention to teachers and teachers who show enthusiasm in raising our children to be

perfect people, in short, to bring the educational system to a completely new level in terms of quality. It is necessary to be in the center of our attention.

Adoption of modern information and computer technologies, Internet system, modern methods of digital and wide-format telecommunications in the field of education, such advanced achievements that determine the level of today's development are not only for schools, lyceums and colleges, universities, but also for any We need to deeply understand the importance of creating a foundation for family life. Development and approval of new standards in higher educational institutions, as well as publication of new generation textbooks, training manuals, electronic textbooks and electronic training manuals in accordance with updated state educational standards[2].

LITERATURE ANALYSIS AND METHODOLOGY

With the rapid growth of automobiles, the organization of road safety in large cities is one of the most important tasks and is one of the urgent topics for experts in the field. One of the main problems is to reduce the number of people who are constantly killed and injured due to road traffic accidents on the world level, and the increase in the level of fatality. There are difficulties in providing services to the population and ensuring traffic safety on the roads. Road traffic accidents cause economic and social damage. The transport and communications system plays a crucial role in the economic life of Uzbekistan. Road transport is of great importance in the transportation of goods and passengers in the republic, more than 80,000 km of highways have been built and are in use [3, 13].

Speed is one of the main features in the use of highways. Depending on the traffic speed indicators, it is possible to evaluate the level of traffic safety, the comfort and equipment of transportation, and the economy. Increasing the speed of movement, on the one hand, increases the efficiency of using the transport system, and on the other hand, it increases the risk of road traffic accidents [8]. Therefore, special attention is paid to the choice of speed when driving vehicles when the course of "traffic rules and traffic safety" is taught to drivers [9, 14]. If the movement is accelerated, the speed of movement is determined depending on the composition and speed of the traffic flow. In addition, the speed of the traffic flow depends on the width of the traffic lanes of the traffic section. In urban conditions, the distance between vehicles should be kept at a distance equal to at least half of the speed. [5] This recommendation ensures efficient stopping of vehicles parked close to each other. In foreign experiments, in the big cities of the USA, in order to ensure the speed of movement, the expansion of streets and the construction of new ones, and even the

construction of expressways designed for the rapid movement of cars, are being carried out.

RESULTS

Speed of movement is one of the main indicators of road traffic, and it is manifested in the form of the main purpose of movement on the road. The most objective indicator on the road is a graph showing the change in speed along the entire route. But the graph of the change of such a speed should be done with the help of a laboratory car along the route. This creates certain difficulties in practice, and in most cases it cannot be done. Therefore, the ability to draw conclusions by measuring the instantaneous speed of vehicles on characteristic sections of the road during the organization of movement has been developed. The maximum design speed of the car Vmax depends on the power of its engine. Observations show that drivers with Vmax speed only in some cases move for a short period of time. In good road conditions, the speed of vehicles is 0.7-0.85 Vmax. This speed is mainly observed on horizontal straight road sections alone. In practice, the road conditions consist of ups and downs, small curves in the plan, visibility distance is lower than normal, vertical curves, and also the amount and composition of traffic is different, which affects the value of the instantaneous speed. In real road conditions, the speed of cars moving alone can vary from 150-120 km/h to 40-30 km/h. Speed on highways is measured using a simple stopwatch, speed measuring devices such as "Farah", "Bar'er", "Pistol" and various automatic sensors, as well as by the film camera method[5, 12].

We can see the growth of the movement speed depending on the distance between the vehicles in the graph below (Figure 1) [4, 11]. It was determined by a simple stopwatch. From the graph, we can see that the speed of movement increases with the increase in the distance between the vehicles. One of the simplest ways to determine the change in speed is to use a stopwatch. In this case, we choose a distance of 100 m and measure how long each car has covered this distance with the help of a stopwatch. We find the speed of cars by dividing the distance by the time traveled by each car.

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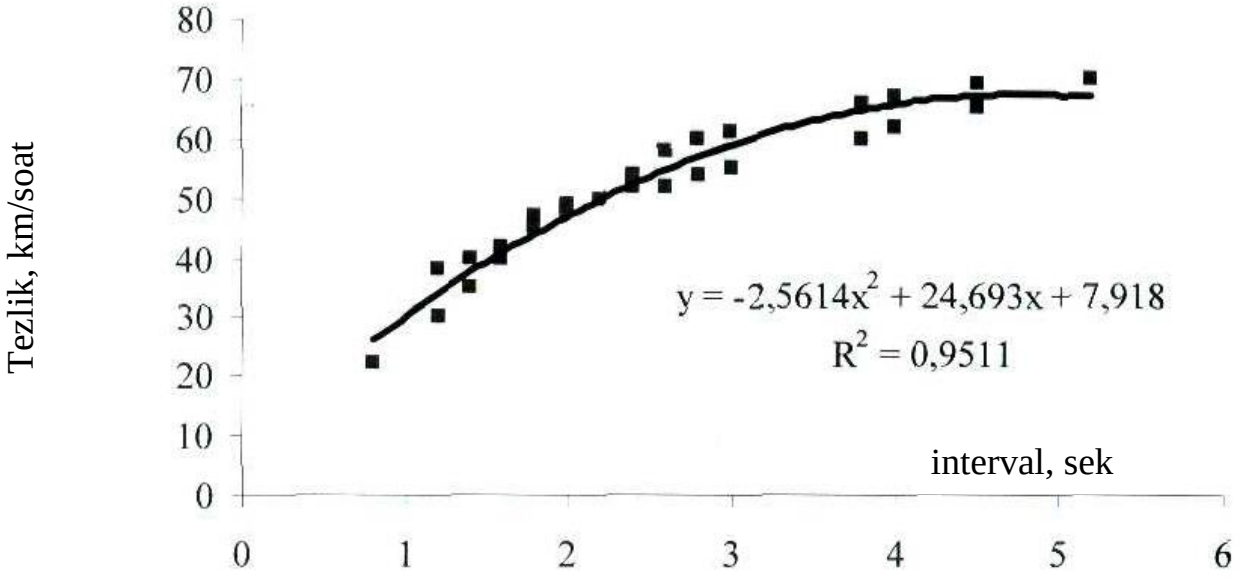

Figure 1. Speed of movement in relation to distance change graph.

We measure the speed in each measurement region 200 times for accurate results of the experiment. We define the experiment in the regions of 100 m entrance and 100 m exit from the intersection, where traffic is monitored. We place the obtained results in graphs for the purpose of analysis. The reason for placing them on the graphs is that the results on the graphs are clear and clearly visible, as well as they show the [10] parameters that we need. In my research work, I determined the speed of vehicles on the streets with traffic in Jizzakh and placed them in the graphs below (Figures 2, 3, 4, 5). As can be seen from the graphs, the traffic speed decreases with the increase in the traffic volume.

When we determined the graph of the change of traffic speed in relation to the traffic volume on Independence Street (Fig. 2), the speed of traffic decreased with the increase of the traffic volume. When the length of the traffic jam is 50, 100, 150, 200 and 250, the speed of movement is 58, 52, 35, 22 and 14 km/h, respectively. Traffic speed is 14 km/h and less when traffic is 250 m and above.

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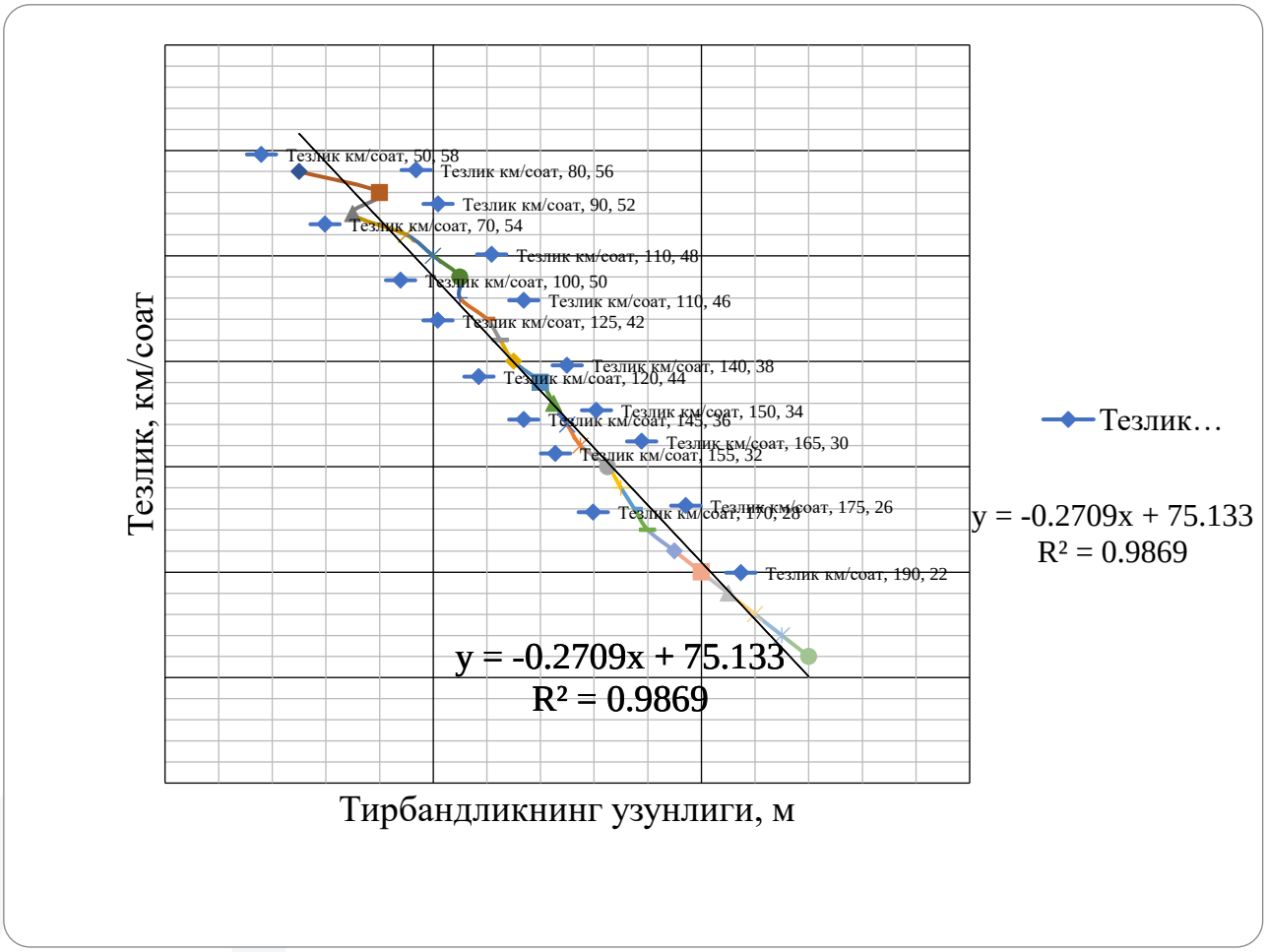

Figure 2. The graph of the change of traffic speed in relation to the traffic volume on Independence Street.

On I.Karimov Street, when we determined the graph of the change of traffic speed in relation to traffic congestion (Fig. 3), the traffic speed decreased with the increase in traffic. When the length of the traffic jam is 50, 100, 150, 200 and 250, the speed of movement is 55, 47, 44, 32 and 13 km/h, respectively. Traffic speed is 15 km/h and less when traffic is 270 m and above. On Sh.Rashidov Street, when we determined the graph of the change of traffic speed in relation to traffic congestion (Fig. 4), the traffic speed decreased with the increase in traffic. When the length of the traffic jam is 50, 100, 150, 200 and 250, the speed of movement is 59, 43, 30, 22 and 12 km/h, respectively. Traffic speed is 15 km/h and less when traffic is 270 m and above. On O.Azimov Street, when we determined the graph of the change of traffic speed in relation to traffic congestion (Fig. 5), the traffic speed decreased with the increase in traffic. When the length of the traffic jam is 100, 150, 200 and 250, the speed of traffic is 58, 43, 18 and 12 km/h, respectively. When traffic is 250 m and above, the speed of movement is 12 km/h and less.

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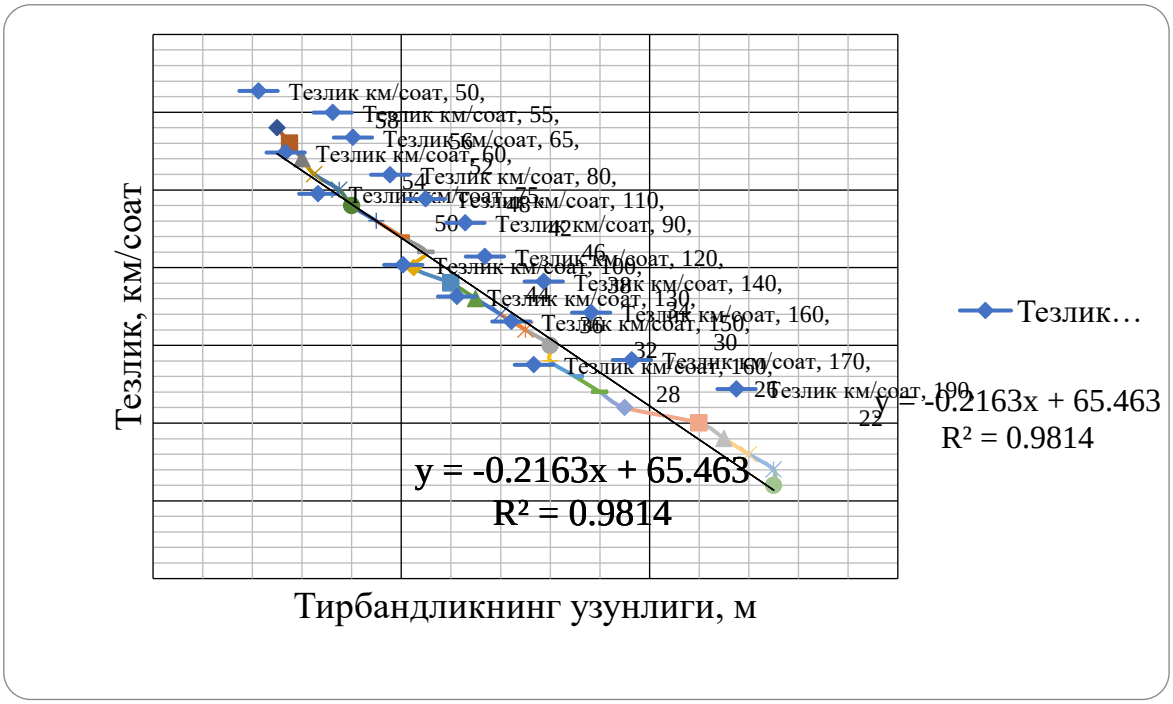

Figure 3. The graph of the change of traffic speed in relation to the traffic volume on I.Karimov Street.

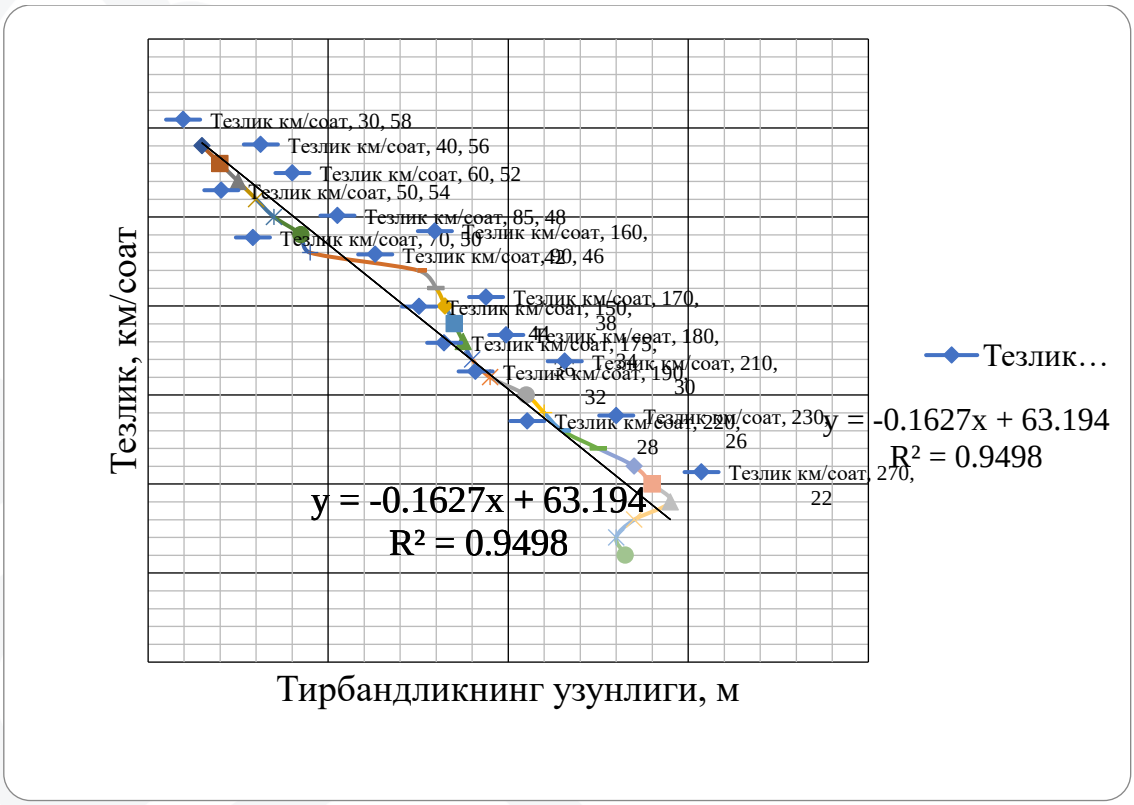

Figure 4. The graph of the change of traffic speed in Sh.Rashidov Street in relation to traffic congestion.

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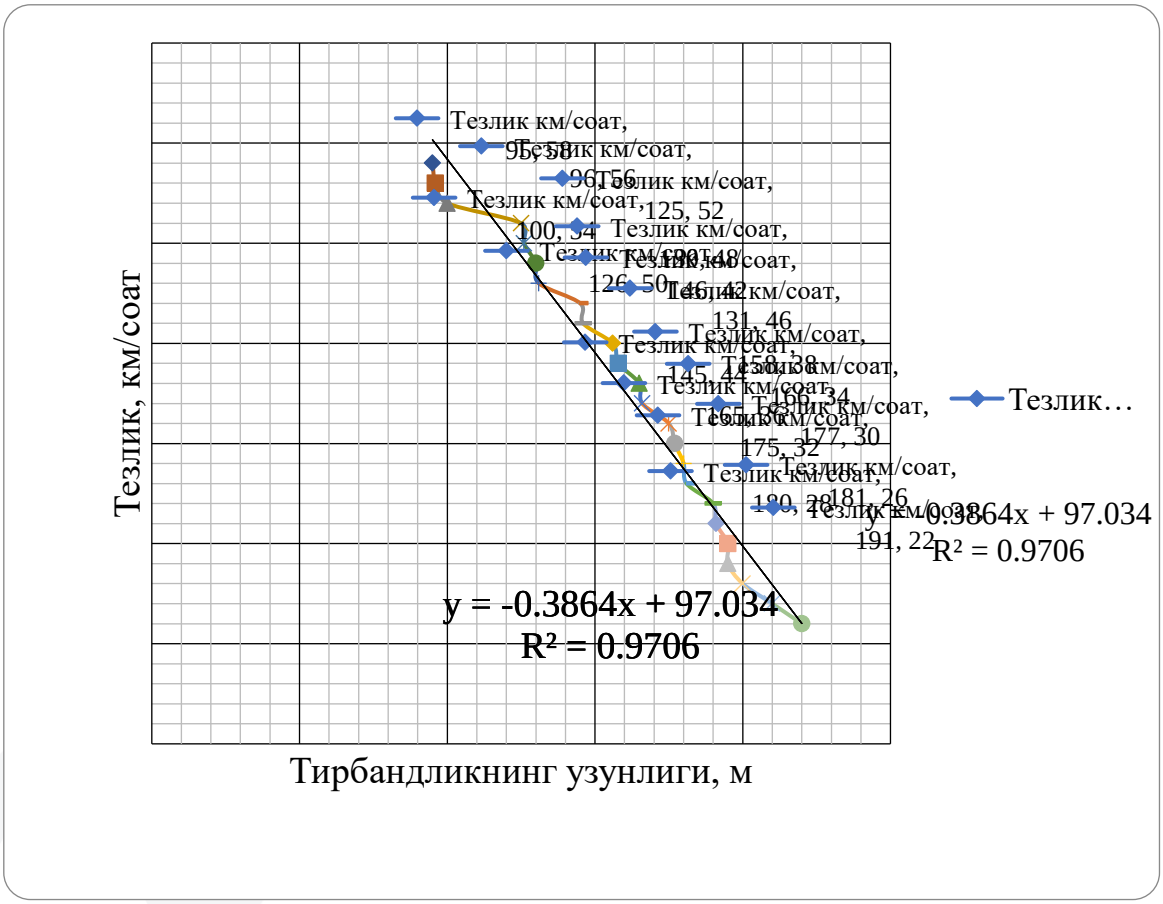

Figure 5. The graph of the change of traffic speed in O. Azimov Street in relation to the traffic of vehicles.

CONCLUSION

The following are the main characteristics of the traffic flow in the city streets where traffic congestion is observed: the speed of the vehicles moving in the traffic flow, the traffic density of the traffic flow, the distance between the vehicles.

The average speed of vehicles on Sh.Rashidov, Mustaqillik, I.Karimov and A.Navoiy streets is 30 km/h, and 40-50 km/h on straight roads. 20-30 km/h on ups and downs, 15-20 km/h on lanes where vehicles are parked, 10-15 km/h at intersections and times of heavy traffic, as well as or It was found that the speed of movement on the curved sections of the road is 20-30 km/h. It was found that the traffic speed is 10 km/h when it increases by 200 m.

I found out that the interval changes depending on the traffic on Sh.Rashidov, Mustaqillik, I.Karimov and A.Navoi streets. From the results of the analysis, it can be said that when the amount of traffic changes from 50m to 250m, the interval of vehicles changes from 6m to 0.9m. That is, to sum up, when the traffic is 250 m and above, the interval is 1÷0.9 m.

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