

**METHODOLOGICAL METHODS OF REGULATING TRANSPORT TRAFFIC IN THE  
URBAN AREA ON THE EXAMPLE OF ANDIJAN**

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**Annotation:** In order to solve this problem, we will provide recommendations and results on the use of intelligent systems to ensure the priority of public transport traffic on routes, prevent traffic jams in the city and ensure traffic safety.

**Key words:** public transport, reconstruction, connection, bus, minibus, road-infrastructure facilities, ring road, traffic.

**Annotatsiya:** Ushbu muammoni hal qilish bo'yicha biz yo'nalishlardagi jamoat transporti harakati ustuvorligini ta'minlash, shahar hududidagi yuzaga kelayotgan tirbandliklarni oldini olish hamda harakat xavfsizligini ta'minlashda intellektual tizimlardan foydalanish bo'yicha tavsiya va natijalarni berib o'tamiz.

**Kalit so'zlar:** jamoat transporti, rekonstruksiya, bog'lama, avtobus, mikroavtobus, yo'l-infratuzilma obyektlari, halqa yo'l, tirbandlik.

**Аннотация:** Для решения этой проблемы мы предоставим рекомендации и результаты по использованию интеллектуальных систем для обеспечения приоритета движения общественного транспорта на маршрутах, предотвращения пробок в городе и обеспечения безопасности дорожного движения.

**Ключевые слова:** общественный транспорт, реконструкция, сообщение, автобус, маршрутное такси, объекты дорожной инфраструктуры, кольцевая дорога, движение транспорта.

## INTRODUCTION

In recent years, large-scale work has been carried out to improve the provision of motor transport services to the population, expand the network of public transport routes and update the traffic structure with modern, environmentally friendly buses. Today, scientific and practical work is being carried out on the development of public transport across our republic, ensuring its priority, providing high-quality, cheap and affordable transport services to the population. Today's goal is not only to deliver passengers to their destination, but public transport is distinguished by providing safe and fast service to passengers that improves the ecological environment of the city. [1]

Of course, in the city of Andijan, the introduction of separate bus lanes on the streets where public transport is constantly moving, the implementation of reconstruction works to ensure the priority of bus traffic at the intersections, the taxi stops at the stations, the safe and barrier-free movement environment for passengers taking into account the reconstruction, the organization of transport links as necessary.

As of July 1, 2023, the number of vehicles per 1,000 inhabitants is 11. At the same time, since there is one public transport for every 8600 inhabitants, local taxis have replaced public transport in the region, leading to a low level of public transport use. [2]

During 2021-2022, 80 types of modern buses and more than 30 minibuses were brought to Andijan. Buses provide city passenger transport services. Minibuses provide transport services to the population on routes connecting the district center with the regional center.

Well, the existing problem in Andijan city is that the average speed of buses in the city area is low, so most of the population is using taxi services. In order to accelerate the movement of urban public transport across our republic, in order to imagine its place with other means of transport, first of all, what is the current state of urban public transport and road infrastructure objects. In developed countries, urban road infrastructure facilities are harmoniously connected with public transport, and in order to improve the environmental condition of the city, various restrictions on the use of private vehicles have been established.

#### LITERATURE ANALYSIS AND METHODS

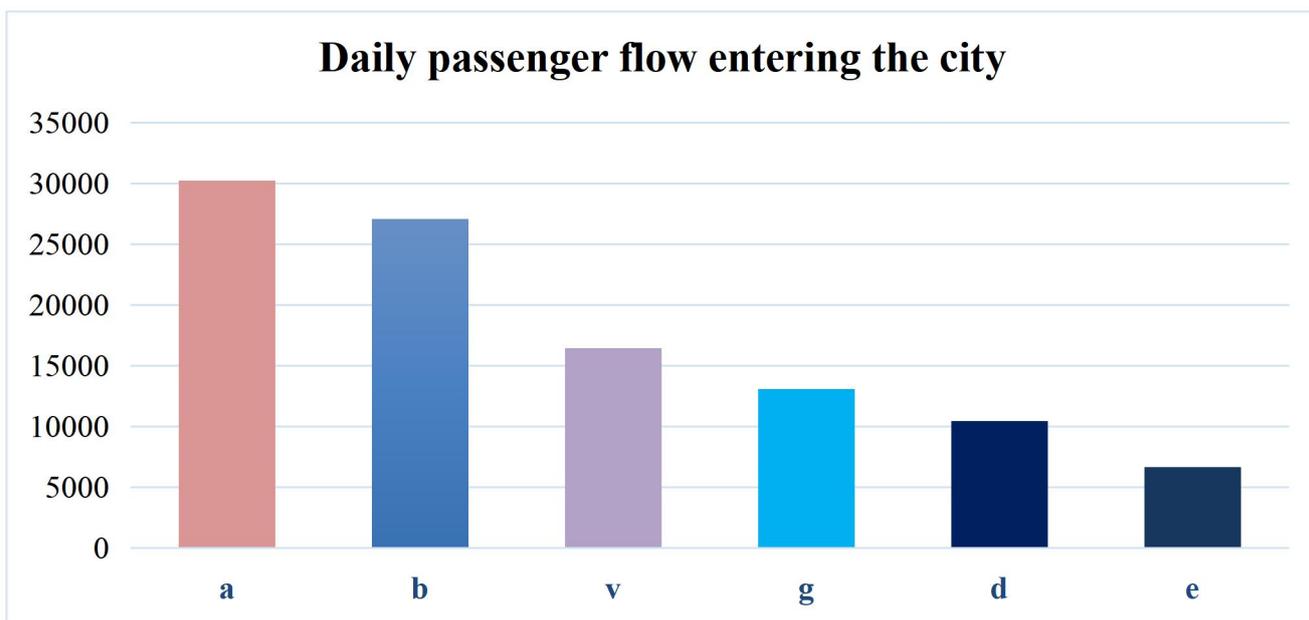
In modern methods of organizing traffic safety in the city, traffic jams on highways are determined in real time using GPS or GLONASS systems. Based on this, as a result of the increase in city traffic flows in parts of the routes, the green and red lights of the traffic lights are arranged to work in real time in accordance with the existing traffic. This method is explained through a mathematical model using the MATLAB program. [3]

In the improvement of the public transport system, which is the main means of transport in the city, it was emphasized that it is possible to ensure the priority of public transport in the city through the methods of optimal placement of pedestrian and bicycle lanes and the organization of bus stops in convenient parts for passengers. [4]

#### RESULTS

During the studies, streams entering the city territory are entering directly through the central streets of the city. Streams enter the territory of Andijan city in 6 directions (a, b, v, g, d, e).

Route a-through Andijan, Izboskan and Pakhtaabad districts, b-Altinkol and Baliqchi districts, v-Khojaabad, Bulogbashi, Kurgantepa districts and the city of Khanabad, g-through Asaka and Marhamat districts, d - A part of Andijan district enters through Soy, through the World Market of e-region. The total number of daily passengers entering the city is more than 100,000.



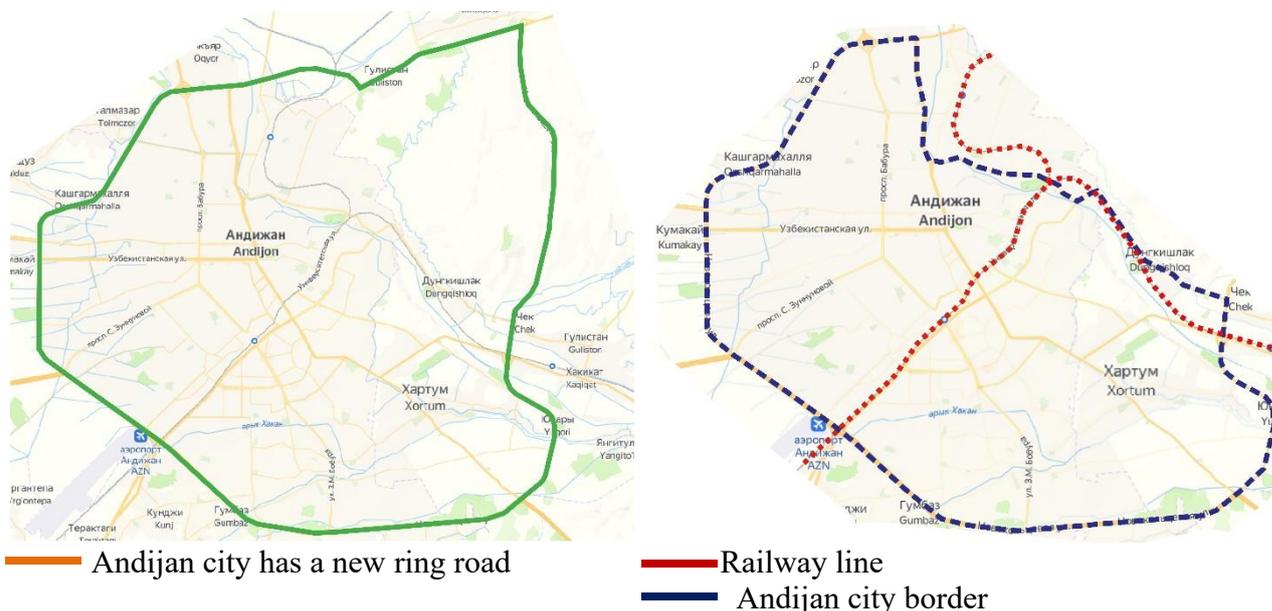
Passengers arrive partly by public transport, directional taxi (Damas), non-directional and private vehicles.

It is becoming clear that the existing road-infrastructure facilities in the city today cannot handle the traffic flow that is increasing day by day in the city.

#### **DISCUSSION**

Photos of the demographic growth in Andijan city and the facilities created to operate as a taxi without direction on the basis of a license and a license card after passing the state registration as a self-employed person in the appropriate manner on the city streets various districts are causing traffic jams. At the same time, the Andijan-Namangan-Tashkent railway line, which crosses the center of Andijan city, causes partial traffic jams in the areas intersected by highways and has an impact on the intervals of public transport (bus).

In the city of Andijan, there is Alisher Navoi street and the new ring road, which do not directly intersect with this railway (Fig. 1).



**Figure 1. Andijan city public road and railway line crossing the city territory [5]**

But the large number of state and non-state organizations on Alisher Navoi Avenue of the city leads to constant traffic on the street. On the new ring road, vehicles used to move from one center of the city to another only through the inner city areas. Because the New Ring Road is considered a big ring road of Andijan city, drivers have to travel more distances to use it. [6,7]

In world experience, the function of roundabouts is seen as the most optimal solution for entering and exiting the city territory, preventing the accumulation of existing flows. The number of ring roads in megacities is from three to seven. [9]

## CONCLUSION

Based on the existing problems, construction of a small ring road in the territory of Andijan city, establishment of paid parking lots in the territory of the city on the basis of public-private partnership, establishment of separate lanes for public transport, use of intelligent systems to ensure traffic safety, separate lanes for velomotor vehicles organization shows that it is appropriate to use smart traffic lights at pedestrian crossings.

Construction of a small ring road in Andijan will be convenient for existing vehicles to enter and exit through parallel streets instead of through the center of the city through roundabouts.

Taking into account the world experience, the introduction of partial restrictions for private vehicles in the city will serve to improve the ecological environment of the city and ensure the priority of public transport.

## LIST OF REFERENCES

1. Decision PQ-59 of the President of the Republic of Uzbekistan dated February 16, 2023 "On measures to reform the public transport system". <https://lex.uz/en/docs/-6386205>
2. Information on the demographic change of the population, <https://andstat.uz/uz/>



3. В.Д. Шепелёв, З.В. Алметова, В.В. Михалчук, И.С. Слободин. Современное методологии организации дорожного движения в городах. Южно-Уралский государственной университет, г. Челябинск, Россия  
<https://cyberleninka.ru/article/n/sovremennyye-metody-organizatsii-dorozhnogo-dvizheniya-v-gorodah>
4. G. Salvo, L. Caruso & N. A methodology to improve a public transport system. University of Palermo, Italy.  
[https://www.researchgate.net/publication/268237588\\_A\\_methodology\\_to\\_improve\\_a\\_public\\_transport\\_system](https://www.researchgate.net/publication/268237588_A_methodology_to_improve_a_public_transport_system)
5. Яндекс. Карта. [электронной ресурс]. – Режим доступа: <https://yandex.uz/maps/geo/771284585/?ll=72.353972%2C40.764856&z=11.82> (дата обращения: 29.09.2023 г.)
6. L.Y.Bakirov M.A.Nurdinov “Avtomobillarda xalqaro yuk tashish qoidalari”. Т. 2021 370 bet.
7. Nurdinov M., G‘anijonov M., Abdupattoyev B. CARGO ON INTERNATIONAL HIGHWAYS REST AREAS FOR CARS //Theoretical aspects in the formation of pedagogical sciences. – 2022. – Т. 1. – №. 6. – S. 302-308.
8. Muqimova D., Nurdinov M. COMPLIANCE WITH RESPONSIBILITY AND WORK REGIMES OF DRIVERS IN LEGAL REGULATORY DOCUMENTS DUE TO ACCIDENTS IN THE TRANSPORTATION OF INTERNATIONAL GOODS BY TRUCKS //Theoretical aspects in the formation of pedagogical sciences. – 2022. – Т. 1. – №. 2. – S. 15-25.
9. Shukurov M. et al. Highways, Functions And Importance //The American Journal of Engineering and Technology. – 2021. – Т. 3. – №. 04. – S. 1-6.
10. Muqimova D. et al. LOCATION AND DEVELOPMENT OF THE MAIN NETWORKS OF WORLD TRANSPORT //Theoretical aspects in the formation of pedagogical sciences. – 2022. – Т. 1. – №. 4. – S. 279-284.
11. Nurdinov M., Dumakhonov F. TRANSIT ROUTES IN THE REPUBLIC OF UZBEKISTAN WHICH IMPACT ON ORGANIZATION AND TRAFFIC SAFETY //Solution of social problems in management and economy. – 2022. – Т. 1. – №. 4. – S. 109-115.
12. Norqul A., Murodali N. MARKAZIY OSIYODA TRANSPORT KORIDORLARINING RIVOJLANISH TARIXI //Novosti obrazovaniya: issledovanie v XXI veke. – 2022. – Т. 1. – №. 5. – S. 68-76.
13. Aslanov N., Nurdinov M. SHAXARLARARO VA XALQARO YUK MASHINALARI UCHUN TO'XTASH JOYLARINI MASOFAVIY BOSHQARISH METODI //Yevraziyskiy jurnal matematicheskoy teorii i kompyuternyx nauk. – 2022. – Т. 2. – №. 13. – S. 65-74.
14. Nurdinov M. i dr. BEZOPASNYE PARKOVOCHNYE MESTA DLYa MEJDUNARODNYX GRUZOVIKOV METOD UPRAVLENIYA NA TRANZITNYX DOROGAX //Models and methods in modern science. – 2022. – Т. 1. – №. 15. – S. 148-157.