

**IMPORTANCE OF INTELLECTUAL SYSTEMS IN ORGANIZING PUBLIC
TRANSPORT MOVEMENT**

Suyunov Oltibek Do'stmurodovich
Termiz davlat universiteti, o'qituvchi;
oltibekjon@gmail.com

Oqnazarov Jahongir Tojinor o'g'li
Termiz davlat universiteti, talaba
jahongiroqnazarov@gmail.com

Abstract: In today's rapidly developing era, the number of motor vehicles is also increasing. This becomes the need of the hour to plan public transportation in a certain systematic way. The use of various devices to control the flow of traffic ensures road traffic safety, and the city's transport infrastructure will continue to develop. We must introduce the use of information and communication technologies on city routes.

Key words: City transport, navigation system, GPS devices, mobile applications, cameras.

Everyone knows that the transport system has a special place in cities, the transport system ensures the active life of city residents and increases its efficiency. Otherwise, it is impossible to imagine today's city life without a transport system. Designing and organizing transport movement is one of the main problems in the architectural-project solution of the city. Everyone knows that information and communication technologies serve as the main factor in the design of the city transport system. Nowadays, in the streets of the big cities of our republic, especially in the city of Termiz, Surkhondarya region, there are no electronic signboards showing the arrival and departure times of buses, mobile applications showing the movement of routes, and video surveillance cameras. According to estimates, only 4.4 million or 22 percent of about 20 million passengers per day in our country use public transport. The level of provision of buses is 24 per 100,000 inhabitants. This indicator does not even reach 15 in Surkhondarya, Kashkadarya, Namangan and Andijan [1]. These analyzes show that the public transport routes of our region are still not optimized. As a solution to such problems, it is advisable to use various electronic devices in the proper management of public transport flow.

GPS is a radio positioning system using navigation satellites. It is a device based on orbiting satellites, capable of providing precise location information. The GPS system is based on the processing of signals from the Navstar global positioning satellite system. Works anywhere on Earth, in any weather conditions [2]. A GPS tracking system in cars consists of at least two important components - the GPS tracker itself and its software[3].

After the GPS tracker is installed in the car, it determines the coordinates using a satellite and transmits the data to a specially secured server.

The software processes the received data, maps the coordinates of the location of the vehicle and shows the route traveled over a certain period of time.

In addition to determining the direction and location through the "GPS" system, it is possible to receive information about stops, distance traveled, fuel consumption (refueling and refueling), as well as whether the vehicle has deviated from the specified route.

Such a system allows for online monitoring of all vehicles, improvement of work processes, and at the same time complete control over fuel consumption and journeys, to put an end to the actions of drivers abusing their duties [6].

It is known from world experience that it is appropriate to use GPS navigation devices in the field of transport in the following cases.

city transport;
taxi;
vehicles of transport and logistics companies;
agricultural machinery [4];

At the moment, even in Termez, the speed of movement of traffic is significantly increasing day by day. The city's streets are served primarily by buses as public transportation. There are some drawbacks to the bus traffic system, and bus users face many problems. In particular, the lack of clear graphs in the regulation of public transport traffic is a clear example of this. Based on the experience of neighboring regions, where bus traffic is systematically established, the implementation of the system for the use of GPS navigators for the purpose of tracking buses moving in the domestic traffic of the city of Termez will be a significant contribution to the development of the city's transport infrastructure.

In addition, the Times of buses coming and going to the stops are reflected in the mobile application (Figure 1).

Currently, at a time when the number of cars on the streets of the city is increasing in tobara, traffic jams also occur on the roads in tabbiyki. This in turn has a negative impact on economic losses, environmental damage, as well as the health of the population. The installation and use of Information Communication Technologies in public transport enterprises has a number of advantages. With GPS devices, the driver can determine the condition of the road in advance. In large cities around the world, data is transmitted to dispatch centers using cameras connected to the GPS system.

In addition, the "GPS" monitoring system has the following advantages, allowing you to obtain up-to-date information in improving work processes:

1. Accurate and up-to-date reports on fuel control, road condition, taking into account speed.
2. Detailed vehicle reporting system (parking spaces, speed limits, data on increased speed).
3. The location, date and time of refueling and refueling are created in the form of detailed tables.
4. Tracking indicators online (fuel consumption sensor, reflector temperature, engine temperature, concrete scraper nodes, etc).

Figure 2. Mobile application that helps drivers to choose the optimal path

In place of the conclusion, it can be said that on the basis of this data, road conditions are determined and help drivers to choose the optimal route (Figure 2), which significantly reduces traffic accidents. If a traffic accident occurs, a special alarm will notify the dispatch Control Center in automatic mode and the address of the duty departments of the public safety service. In turn, the dispatch management center constantly monitors the results of passenger transport work and provides information to the city ambulance departments and to the leaders of transport enterprises. This serves to prevent various frustrations and untimely loss of life incidents that occur during traffic.

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Figure 1. Online tracking of bus traffic using mobile app

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