

PROSPECTS FOR THE DEVELOPMENT OF TRANSPORT AND ROAD TRANSPORT INFRASTRUCTURE OF THE CITY OF ANDIJAN

Soliev Akhror

Andijan State Technical Institute

Teacher of the Department of Transport Logistics

Annotation: This article provides for work on improving the theoretical foundations of modern, affordable, high-quality, and convenient public transport services for passengers in the city of Andijan, improving the management and forecasting of traffic flows, managing traffic flows based on digital technologies, and increasing the efficiency of using the motor transport infrastructure by choosing the most optimal management system.

Keywords: Transport, passenger, safety, public transport, passenger flow, GIS program, intersection, road signs, parking.

Introduction. The large-scale socio-economic reforms being carried out in the republic in recent years and aimed at increasing the industrial potential of the regions, radically changing the appearance of cities and rural settlements, require more intensive development of road transport infrastructure as an important factor in increasing the intensity of economic ties and developing the country's economy [1].

One of the main tasks performed on the road and street networks of the city of Andijan is the organization of safe movement of transport, pedestrians and cyclists along the network, elimination of traffic jams, increasing the capacity of the street, ensuring optimal speed along the street, and reducing road accidents. The use of methods used in the implementation of the listed measures and in improving the transport and operational indicators of city roads and streets has an effective effect not only on the proper organization of traffic, but also on increasing traffic safety and road capacity. Also, the above-mentioned measures are cheaper than street reconstruction and should be considered as the first step in improving traffic conditions of city roads and streets before carrying out capital works [2,3].

The main goal and objectives of Andijan city road transport network planning and development are transport problems in cities: - operation of street and road networks with heavy loads; - decrease in transport capacity on city roads; - high time spent by the population using motor vehicles; - study and analysis of regional problems for building new roads in the city territory; - impact of urban transport in designing city road and street networks; designing water drainage networks from city streets and roads; - designing underground engineering networks considering city territorial conditions; - organizing safe traffic on city streets and roads; - designing city streets and roads without harming the environment and ecology [4,5,6].

Methods. Transport is the foundation of urban life. This is one of the variables that determine the shape and financial development of the city. The mobility and convenience of the transport system in emerging countries influence the sphere of social and monetary movements, the shape and size of urban communities, lifestyle, and pace [6]. Also, public transport routes in the city of Andijan will be implemented in the GIS program.

Today, large-scale scientific research is being conducted worldwide aimed at improving the theoretical foundations of traffic flow management and forecasting in large cities to prevent

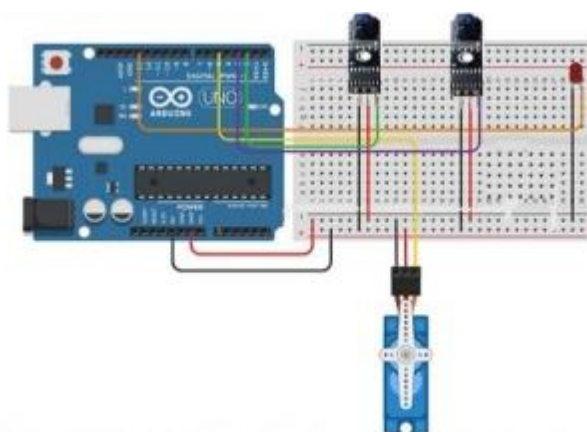
traffic jams and reduce the harm caused by vehicles to the environment. In this direction, research is considered a priority, including on the management of transport flows based on digital technologies, increasing the efficiency of the use of motor transport infrastructure by choosing the most optimal management system [7]. In this regard, special attention is paid to the introduction and application of digital technologies in the management of traffic flows in the road network. To thoroughly study road traffic accidents (RTAs) on highways, road traffic specialists must have information about their types and quantities, have a thorough knowledge of the RTA collection system, their accounting procedures, and analysis methods. Moreover, increasing the effectiveness of work on preventing road accidents, taking measures to eliminate identified shortcomings in the prevention of road accidents involving transport and pedestrians, including children, improving the technical readiness of vehicles, and drawing the attention of the general public, heads of various organizations and institutions, and the media to these issues will further intensify work in this area.

Result and discussion. Smart parking is a specialized place for parking cars, created using sensors and modern technologies, to quickly and conveniently locate parking spaces, ensure safety, and automate the temporary parking process.

The placement of such systems within urban areas is currently very relevant and important for the development of urban infrastructure. Therefore, we have set ourselves the task of developing such projects. For this, it is necessary to start with the elementary design of the parking lot (Fig. 2).

Fig. 1. Smart parking layout smart system connection diagram

In a smart parking lot, you park your car in a parking lot without any manual labor, and the system automatically occupies your parking space. To complete this project, we will need an



Arduino, 2 Line sensors (mh-sensors), a Servo motor, a photoresistor, a resistor, and a LED. Of course, we will create a finished program for the operation of the system boards in the connected circuit using the Arduino program. In this case, the diagram of the constructed algorithm of the intelligent system is as follows (Fig. 3).

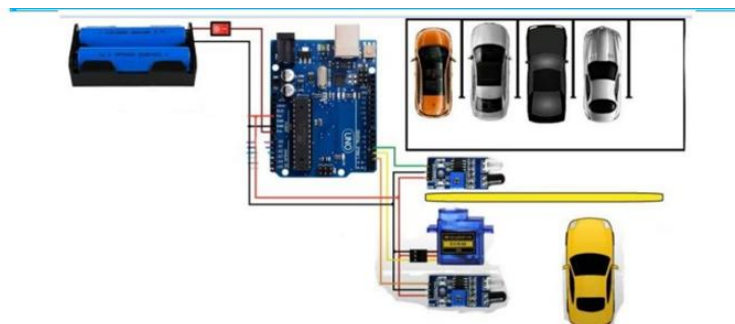


Figure 2. General view diagram of a smart system

Conclusion. The development of transport and road transport infrastructure of the city of Andijan is one of the most pressing issues today. The increasing traffic density in the city and the growing need for public transport require the creation of modern and sustainable infrastructure. In this direction, the reconstruction of roads, the introduction of modern vehicles, and the implementation of digital management systems are of great importance. In the near future, it is expected that the quality of life in the city will improve due to the transition to environmentally friendly, energy-efficient vehicles, and the expansion of bicycle and pedestrian walkways. Consistent development of transport infrastructure not only creates conveniences for the city's residents, but also serves to increase economic activity and develop tourism potential. In conclusion, the modernization of the transport system of the city of Andijan is one of the priority areas, and the efforts in this direction will serve to make the city a more modern and comfortable place for living in the future.

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