ITT Інтелектуальні Транспортні Технології

УкрДУЗТ

ІНТЕЛЕКТУАЛЬНІ ТРАНСПОРТНІ ТЕХНОЛОГІЇ

V МІЖНАРОДНА НАУКОВО-ТЕХНІЧНА КОНФЕРЕНЦІЯ

ПРОГРАМА КОНФЕРЕНЦІЇ

ITT2024

УКРАЇНСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ ЗАЛІЗНИЧНОГО ТРАНСПОРТУ

**Тези доповідей 5-ої міжнародної
науково-технічної конференції**

«ІНТЕЛЕКТУАЛЬНІ ТРАНСПОРТНІ ТЕХНОЛОГІЇ»

Харків 2024

Збірник містить тези доповідей науковців вищих навчальних закладів України та інших країн, підприємств транспортної та машинобудівної галузей за чотирьма напрямками: розвиток інтелектуальних технологій при управлінні транспортними системами; транспортні системи та логістика; інтелектуальне проектування та сервіс на транспорті; функціональні матеріали та технології при виготовленні та відновленні деталей транспортного призначення.

data storage and processing. As a result of calculations, clients immediately receive information about the duration and mileage of routes, cost, traffic schedule, vehicle load and expected profit.

IoT is a production technology in logistics aimed not only at optimizing the activities of transport companies, but also at ensuring customer orientation.

It creates a network that connects physical devices and software to exchange information between computer systems and the real-world using communication protocols. This ensures transparency in logistics deliveries. Companies that use new concepts quickly take a leading position among competitors that do not use advanced technologies. Thanks to this technology, it is possible to track the location of the cargo in real time, control its condition and the efficiency of the vehicle, as well as important parameters such as temperature and humidity in the vehicle body, which is especially important for the transportation of perishable goods. In addition, it is possible to monitor the driver's workflow.

In urban transportation, RFID tags are used to track the location of cargo and identify it during loading and unloading. They collect and transmit information through IoT and blockchain technologies to the dispatcher's computer, this data is used to optimize routes. The RFID tag contains information about the cargo, the place and time of delivery, and the transport company. It has the advantage of reusability and avoidance of errors that may occur due to the human factor.

УДК 656.025

РОЛЬ ДІДЖИТАЛІЗАЦІЇ В МІЖНАРОДНИХ ВАНТАЖОПЕРЕВЕЗЕННЯХ

THE ROLE OF DIGITALIZATION IN INTERNATIONAL CARGO TRANSPORTATION

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Transporting goods in international cargo transportation environment is a complex and key aspect of logistics. Limited space, narrow streets and a large number of vehicles complicate the transportation process. Some cities take various measures to optimize this process, such as limiting the access of vehicles to certain hours, establishing special routes for trucks or creating transport terminals. These measures make it possible to move goods around the city more efficiently and increase the productivity of logistics processes.

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Efficient transportation of goods in international cargo transportation environments requires a combination of innovative technologies, strategic route planning and advanced logistics infrastructure to ensure uninterrupted and prompt delivery of goods.

Modern technologies, including robotics, automation and artificial intelligence, play a significant role in logistics and supply chains. These technologies help streamline processes and increase efficiency, focusing on security, flexibility and collaboration. In general, modern technologies are transforming logistics and supply chains, making them more efficient, reliable and flexible.

In recent years, e-commerce has grown rapidly, leading to an increase in the need for last-mile delivery services and creating new challenges for logistics companies aimed at ensuring efficient and reliable delivery of goods to end consumers.

The concept of the "last mile" is the last step in the movement of both people and goods from a transport hub to their final destination in the supply chain. In recent times, this aspect has made significant progress due to the growth of e-commerce. The rapid growth of online shopping has led to an increase in demand for last-mile delivery, with consumers increasingly choosing door-to-door delivery over other delivery options. Last mile delivery in supply chains is becoming increasingly critical, and logistics service providers recognize the need to adapt to new customer demands in order to increase their competitiveness in the transportation market.

Recent years have witnessed the widespread use of digitization and digital technologies in urban transportation and city logistics. The latest technologies based on the Internet of Things (IoT) significantly reduce time and costs for transport companies, affect competition in the transport market, are the basis for quick management decisions and improve the quality of transport services for consumers.