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OF UKRAINE**

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**APPLIED SCIENTIFIC AND
TECHNICAL RESEARCH**

April 1-3, 2020

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Volume 2**

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IVANO-FRANKIVSK NATIONAL TECHNICAL UNIVERSITY OF OIL AND GAS
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- to coordinate technological processes in supply chains and junction modules of different modes of transport in order to prevent inter-operative and non-standard downtime of vehicles and transport and storage resources;
- coordinate the activities of agro suppliers, elevators, carriers, terminals, ports and other market participants in order to achieve synergistic effects throughout the logistics system of grain supply.

Conclusion. Ukraine has significant export potential for the supply of grain cargo. This necessitates the further development of transport and grain infrastructure in the country, as well as improving the efficiency of the organization of supply of grain cargo, especially in the export connection, which will allow to reduce the cost of grain and, consequently, to increase its competitiveness in the world market.

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ARTIFICIAL INTELLIGENCE IN TRANSPORT LOGISTICS AND IN SUPPLY CHAIN MANAGEMENT

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Introduction. Artificial intelligence is taking up the pace when it comes to global logistics and supply chain management. The on-going evolution in the areas of technologies like artificial intelligence, machine learning, and similar new technologies is said to possess the potential to bring in disruption and lead innovation within these industries.

Presentation of the material. Today, transport logistics solves a set of tasks related to the organization of the movement of goods by public transport. One of the tasks of transport logistics is the creation of transport systems, corridors and chains, in which the use of artificial intelligence approaches is of particular importance and is, even, necessary to support decision-making by the operational staff of the transportation industry [1].

The relationship between material and information flows is obvious, but the responsibility of one stream to another is conditional, since the content of the material flow, as a rule, reflects the data of the information stream, but they may not coincide in terms of time. Material and information streams can be both unidirectional and multidirectional, and this feature allows artificial intelligence to control transport processes [2]. The path in which the information flow moves may generally not coincide with the flow path of the material flow, which significantly complicates the flow control of vehicles.

Talking about artificial intelligence means using robotics. They are used to track, locate and move inventory within the warehouses. Apart from robots, artificial intelligence is also about big data. When the insights of Big Data are used along with artificial intelligence, it helps to improve different areas of supply chain like supply chain transparency and route optimization [2].

Advantages of artificial intelligence for Supply Chain Management [2]:

1. Predictive Analytics. Forecasting of requests helps to upgrade supply chain forms. Ideal inventory levels and decreased holding costs are key advantages of exact interest forecasting.

2. Improving Inventory Management. With an effective inventory management system in place, you can help reduce costs, keep business profitable, analyze sales patterns and predict future sales, and prepare the system for the unexpected.

3. Automated Quality Inspections. The use of artificial intelligence to control automated quality inspections lessens the odds of conveying broken merchandise to customers.

4. Quick High-yield Shipping. These technologies save time of workers, enabling them to give more an incentive to their more important duties or solve other problems in management or technical process.

Conclusion. The introduction of artificial intelligence into supply chain operations can propel logistic business into the future – harnessing automation, optimising supply chain planning, and evaluating multiple scenario outcomes processes in decision-making. That’s a powerful future for transport.

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