

IMPLEMENTATION OF DIGITALIZATION IN HIGHER EDUCATION BASED ON MATERIALS FOR THE STUDY PROGRAM "ENGINEERING AND MANAGEMENT IN AUTOMOTIVE TRANSPORT"

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Introduction and Background

The digitalization of education process for the study program "Engineering and management in automotive transport" was developed through the implementation of the ERASMUS+ project no. 101127683 - DIGITRANS - ERASMUS-EDU-2023-CBHE "Digital transformation of HEIs education process in Ukraine and Moldova for sustainable engagement with enterprises". The profile department constantly organizes scientific-didactic, methodical activities at the regional, national and international level in which potential employers, graduates and students involved in the study program Engineering and management in automotive transport participate. The proposed modernization of 7 courses and laboratory practicums will improve the quality of the educational process and update the educational and material base for high-quality training. All of this is to increase graduates' employability and support sustainable growth and jobs in Ukraine and Moldova, in line with the Green and Digital transition, through the implementation of supporting measures. The purchase of equipment for educational laboratories and the development of modern laboratory workshops will allow students to have the opportunity to conduct research at partner universities and enterprises. Introduction of integrated thematic complexes that will allow students to achieve additional learning outcomes.

Results

As part of the implementation of the DIGITRANS project, USARB purchased the equipment necessary for the development of planned courses practices. The equipment offers students a complete educational and research experience, adjusted to the requirements and advanced technologies of the modern automotive industry. Students learn how to combine automation, electrification, electronics and sensor technologies into an integrated system, which is essential in the development and operation of modern vehicles and transportation infrastructure. This equipment also supports the development of digital and technical skills, preparing them for the challenges of the ever-changing automotive industry, including the transition to electric and autonomous vehicles. Through the purchased equipment, the project contributes to the training of a new generation of engineers and specialists in automotive transportation, well-prepared to work with cutting-edge technologies and to meet the demands of the automotive labor market, including in the context of the green and digital transition. The equipment purchased with the support of the DIGITRANS project is used for educational and research purposes to improve the understanding and practical training of students in the field of engineering and management in automotive transport, especially in the context of new technologies in the automotive industry, such as electric and autonomous vehicles. The USARB also applies digital tools, such as online platform MOODLE, software for simulations, and e-books, with the aim of complementing traditional materials and offering opportunities for personalized learning.

Conclusions and Implications

1. The digitization of the process of training engineers in the automotive industry, facilitates access to up-to-date content, improve student engagement, and supports innovative teaching methods like active learning, and collaborative projects.
2. Integrating digital resources helps students develop critical digital skills, prepares them for modern workplaces, and promotes deeper understanding by allowing for virtual experimentation and system modelling.

Keywords: *automotive transport, digitalization, engineering, equipment, learning, study program*

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