IMPLEMENTATION OF AUTOMATIC GUIDED VEHICLES IN THE OPERATIONAL PRODUCTION FLOW

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Rezumat. *Lucrarea de față este bazată pe implementarea, realizarea și testarea unor vehicule cu ghidare automată (AGVs) în cadrul Uzinei Vehicule DACIA. Un AGV cu sistem de transfer este un vehicul ghidat automat care are un rol de a efectua mişcări de alimentare, transport şi transfer în cadrul unui flux logistic, într-o întreprindere cu activități de producție. Acestea sunt întâlnite în industrie atât la începutul cât și la sfârşitul unui flux logistic automatizat. AGV-urile sunt necesare pentru a micşora atât timpul cât și costul de producție determinând fluxuri inteligente și eficiente de materiale pentru o intralogistica orientată către client.*

Abstract. *The present work is based on the implementation, realization and testing of the vehicle with automatic guidance (AGV) within the DACIA Vehicle Plant. An AGV with transfer system is an automatically guided vehicle that has a role of performing power, transport and transfer movements within a logistics flow, in an enterprise with production activities. They are found in the industry both at the beginning and at the end of an automated logistics flow. AGV's are needed to decrease both the time and cost of production by causing intelligent and efficient material flows for a client-oriented intralogistics.*

Keywords: AGVs implementation, material flow

1. Introduction

Industrial robots are the most used type of robots, these being also the first to appear, in response to the need to perform faster and more accurate repetitive operations, often found in production processes.

In recent decades, in the industrial, agricultural, forestry fields, in order to solve problems related to local transport, mobile robots are represented by AGVs (Automated-Guide Vehicles), vehicles with automatic guidance, which were originally introduced in the automotive industry around the 1950s. Nowadays,

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