

POLITECHNIKA ŚLĄSKA
WYDZIAŁ ORGANIZACJI I ZARZĄDZANIA

**Zintegrowany model systemu transportu wewnętrznego
dla obiektu magazynowego
wspomagającego proces produkcyjny**

ROZPRAWA DOKTORSKA

mgr inż. Karolina Probierz

Promotor:

Prof. dr hab. inż. Józef Bendkowski

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Abstract

Increasing globalization is determining the development of economic organizations causing enterprises to amalgamate into supply chains in order to be able to speed up the flow of material and information in response to the changes occurring in the market. The link of supply chains that is becoming more and more important from the management point of view is warehouse facilities, which are built in relation to the ever growing demand for logistical services. Internal transport system [ITS] is thus a binder that keeps together all the logistical processes in the warehouse facility. Should such a system lose efficiency, the warehouse can be paralyzed (stock shortages, delays, congestions, etc.), which may lead to a shutdown of the entire supply chain.

Having taken the above into consideration, the author of this doctoral dissertation established its goal to be to elaborate a procedure for configuring **the integrated model of internal transport system for the warehouse facility that supports production processes** containing **functional attributes**.

The objectives defined for the dissertation as well as its thesis were completed by **analyzing technical and organizational documentations, mapping processes, interviews, observations, taxonomic and indicator-based methods and disturbance analyses**.

Research in literature was conducted in doctoral dissertation that includes: logistics processes, transportation infrastructure, storage facilities supporting production processes and functional requirements of transport systems.

The paper develops and analyses the process map of the material, financial and information flows. The main disturbances that occur during the performance of the transport and warehousing tasks were also determined. Also measurement that can be used to analysis and assessment of ITS were presented.

As a result of presented above actions the improvements to ITS in the selected company were proposed.

The paper also defines the external factors that affect the need for an individual approach to configuring the internal transport and warehousing systems in the warehouse facilities that support production processes in the conditions of units and small series production.

The doctoral dissertation presents the procedure for configuring the internal transport and warehousing system model in the warehouse facilities that support unit and small series production. As well as recommendations for designers and users of the internal transport and warehousing systems in the warehouse facilities that support unit and small series production processes. The procedure presented in the paper consists of three modules.

The research conducted in the selected company manufacturing mining machinery serves as a basis for formulation of the final conclusions that were presented in the doctoral dissertation.