
ABSTRACTS

BASIC OVERVIEW ABOUT DIGITAL FACTORY AND VIRTUAL COMMISSIONING

(pages 1-4)

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Keywords: digital factory, product lifecycle management, virtual commissioning, simulation

Abstract: The paper deals with PLM systems, which are using for management of products during their lifetime. For that it is necessary to have some special tool for it. Especially if we want to handle pre-production phase. The main philosophy is to get fully functional virtual system before it will be created in real production. This virtual system needs to be modeled according to requirements of product and its process of production. This concept is called virtual commissioning. Environment, which contains machines, robots, equipment, workers and products, needs to be simulated with all possible scenarios before it will be implemented to real production. The resolution of this idea is not only cost saving, but also shorter time of production planning.

CLARKE AND WRIGHT SAVING ALGORITHM AS A MEANS OF DISTRIBUTION STREAMLINING IN THE ENVIRONMENT OF A CONCRETE COMPANY

(pages 5-8)

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Keywords: Clarke and Wright saving algorithm, transportation planning, distribution, optimization

Abstract: Reducing costs forces of companies to look for reserves also in field of management, support and implementation of material flow. This is connected with the optimization of costs for product distribution, which forms a significant part of the total cost of the company. In practice, it happens that making plans for distribution of materials within a distribution space is left solely to the implementers of distribution and it drivers of vehicles. As a result is uneconomic material distribution and unnecessary cost increases to his distribution. The objective of the paper is to propose a methodology for optimization of transport planning from DC Prešov to the individual Tesco units within the region that comes under this distribution centre. The methodology is based on the Clarke and Wright saving algorithm.

INFORMATION SECURITY IN LOGISTICS COOPERATION

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Keywords: information security, supply chain, logistics outsourcing, ISO 27001 standard, contract

Abstract: Cooperation of suppliers of raw materials, semi-finished products, finished products, wholesalers, retailers in the form of the supply chain, as well as outsourcing of specialized logistics service require ensuring adequate support of information. It concerns the use of appropriate computer tools. The security of information in such conditions of collaboration becomes the important problem for parties of contract. The objective of the paper is to characterize main issues relating to security of information in logistics cooperation.

NEW TRENDS AND CHALLENGES IN AUTOMOTIVE INDUSTRY LOGISTICS OPERATIONS

(pages 15-19)

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Keywords: automotive, logistics, innovation, trends, challenges

Abstract: This paper lays out the main features of the global automotive industry and identifies several important trends. Logistics operations (inbound and outbound) in the automotive supply chain are complex and account for large expenses and therefore are segments in the value chain where improvements can be made. Better coordination between inbound and outbound logistics contributes to optimising the supply chains, to reducing inventories and to responding to consumer requests. As economies grow, the competition shifts towards brand image and customisation and here the speed and reliability of logistics operations becomes a critical elements.

PROPOSAL OF SPATIAL OPTIMIZATION OF PRODUCTION PROCESS IN PROCESS DESIGNER

(pages 21-25)

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Keywords: production process, optimization of space, Process Designer

Abstract: This contribution is focused on optimizing the use of space in the production process using software Process Designer. The aim of this contribution is to suggest possible improvements to the existing layout of the selected production process. Production process was analysed in terms of inputs, outputs and course of actions. Nowadays there are many software solutions aimed at optimizing the use of space. One of these software products is the Process Designer, which belongs to the product line Tecnomatix. This software is primarily aimed at production planning. With Process Designer is possible to design the layout of production and subsequently to analyse the production or to change according to the current needs of the company.
