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## ABSTRACTS

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### APPLICATION OF GRAPHICAL METHODS IN PRODUCTION OPTIMIZING

(pages 1-6)

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**Keywords:** optimization, flow, efficiency, diagram, graph

**Abstract:** Paper deals with the use of graphical methods in industrial practice. In the case study gives concrete expression to the use of a Gantt chart and CPM method for improving the efficiency of logistic support in company which implements a new production line. It is a way to optimize various related activities, which creates conditions for the overall effective project management in company.

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### PROCEDURE FOR DRAFTING A PROJECT AND SELECT THE MOST APPROPRIATE VARIANTS OF SIMULATION MODELS FOR OPTIMIZING ASSEMBLY LINE DOORS OF CAR

(pages 7-11)

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**Keywords:** simulation, optimization, variant, statistics, project

**Abstract:** The content of this paper is a proposal for assembly line doors of car and their components. It describes the Procedure for drafting a project for evaluate the suitability of alternatives using simulation models of these variants workplaces. These of variants each other qualitatively and quantitatively compares and describes effective and optimal.

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At the beginning of post briefly describes the theoretical knowledge of the field of simulation and clarifies their advantages and disadvantages.

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## **SIMULATION AS A PART OF BUSINESS PROCESS MODELING**

(pages 13-16)

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**Keywords:** simulation, modeling, process simulate

**Abstract:** Simulation, especially computer simulation has been in a rapid growth in recent years. Its deployment in practice generally improves production possibilities in many ways. Requirement for computer-simulated production system is to optimize production, where the resolution needs to be ultimately maximizing the savings in production costs and minimizing production time with respect to the quality of the final product. Resources of the computer simulations in the coming years will be increasingly powerful means of competitive producers. Knowledge of simulation and its application in a virtual environment in a connection with real production is already a key tool for the success of many companies nowadays.

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## **KINEMATICS ANALYSIS OF THE SIX MEMBER MECHANISM IN MSC**

### **ADAMS/VIEW**

(pages 17-22)

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**Keywords:** MSC Adams/View, mechanism, simulation, kinematics analysis

**Abstract:** The aim of this article is to develop a functional model of six-member mechanism in ADAMS/View software and his following complete kinematics analysis. We analyze the movement of the members of the mechanism. Kinematics analysis was performed analytically and graphically. The mechanism has been also modeled and solution in the program MSC ADAMS/View. The next stage is the simulation with a set of different parameters to obtain its kinematics analysis. Finally the data gathered in this process is compared and evaluated. Finally, the work presents the results with graphical representation of parameters such as speed, distance and acceleration.

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## OPTIMIZATION OF THE INVENTORY BY USING SIMULATION

(pages 23-27)

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**Keywords:** simulation, Monte Carlo method, optimization

**Abstract:** The article deals with the simulation, more specifically with the method Monte Carlo. The term as a simulation, simulate, a simulator are well known in many scientific disciplines. Simulation, especially computer simulation has been in a rapid growth in recent years. The simulation is experimenting with computer models based on the real production process in order to optimize the production processes or the system. The simulation model allows to perform a number of experiments, analyze them, evaluate, optimize and afterwards apply the results to the real system. By using the Monte Carlo method it is possible to find the optimal quantity of reserves and to maximize a profit.

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