

OPTIMAL DESIGN OF THE MECHANISMS USING MULTIBODY SYSTEMS SOFTWARE

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Abstract: *In this paper, we attempt to present a lot of aspects regarding the usage of multibody systems in the optimization process of the mechanical systems. The optimization of the virtual model is made in the following steps: parameterizing the virtual model, defining the design variables, defining the design objective for optimization, performing design studies in order to identify the main design variables, and optimizing the model on the basis of these variables. For applying the optimization algorithm, the hood mechanism for a storage compartment has been taken into account, using the multibody systems environment ADAMS of MSC Software.*

Key words: *multibody system, optimal design, design variable, constraint.*

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