Kinematic and Dynamic Analysis and Distribution of Stress in Items of Planar Mechanisms by Means of the MSC ADAMS Software

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This paper presents a kinematic and dynamic analysis and distribution of the stress in items of a planar mechanism by means of the MSC ADAMS software. Graphic dependence of kinematic and dynamic magnitudes of some points is given in dependence on the angle of rotation of the driving item and in dependence on the time. Distribution of the stress in the items presented is in [Pa]. In relation to the kinematic and dynamic analysis and subsequent simulation [1-3] of the planar as well as spatial mechanisms, it is great solution to use MSC Adams software program. The considerable advantage of this mentioned program is based on its simplicity from the aspect of modelling and moreover, it is important to point out that utilisation of the mentioned program leads to results which are precise and accurate in the case of the numerical solution of the equations in the whole magnitude referring to motion of mechanism while the given results are obtained in the graphic form.

Keywords: kinematic analysis, dynamic analysis, finite element method, planar mechanism

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