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SUMMARIES

DYNAMIC PRECISION OF RRRRT TYPE SPHERICAL FIVE-BAR HINGED MECHANISM WITH TWO DEGREES OF FREEDOM WITH CLEARANCES IN KINEMATIC PAIRS. **A. Sharvashidze, N. Davitashvili, N. Keburia. "**Problems of Mechanics". Tbilisi, 2020, № 4(85), pp. 7-15, (Engl.).

The research of dynamic accuracy of RRRRT type spherical five-bar hinged mechanism with two degrees of freedom with clearances in kinematic pairs is given. Is considered a case when it is necessary to strictly carry out a certain movements of the input links, and the movements of output links, in the absence of initial errors, are determined by differential equations. Also is considered the case when is not obligatory to maintain the movements of the input links. In this case firstly are solved equations that determine the errors of positions, velocities and accelerations of output links in the function of generalized coordinates. Further, expressions of kinetic energy and generalized force of the mechanism are compiled. On the basis of the second order Lagrange equations, differential equations of movement for ideal and real mechanisms are compiled. в. найдутся погрешности положения, скорости и ускорения выходных звеньев механизма в динамических условияхBy solving the equations of a real mechanism with initial errors would be found the errors of positions, velocities and accelerations of the output links of the mechanism in dynamic conditions. 3 ill. Bibl. 18. Engl.; sum. in Russian.

THE CURRENT STATE AND TRENDS OF AGRI-ENGINEERING STUDIES IN GEORGIA. **R. Makharoblidze, Z. Putkaradze. "**Problems of Mechanics". Tbilisi, 2021, № 4(85), pp. 17-26, (Engl.).

The article analyzes the main results of agri-engineering studies in Georgia, taking into account the world trends; proceeding from the distinctness of the agriculture of the country the main directions of the fundamental and integratedapplied studies in the branch of mechanization are defined. The attention is paid to the branches of the mechanics and mathematical sciences, which application significantly raises the scientific level of agri-engineering studies. The measures for stabilization of the engineering sphere of the agricultural sector and development of agriculture on the way of technological and technical innovation are defined. Bibl. 3. Engl.; sum. in Russian.

DEVELOPMENT OF THE DESIGN OF A COMBINED PRITECTIVE DEVICE OF THE TURBIJET ENGINE. A. **Maisuradze, S. Mebonia, M. Chelidze, Kh. Mgebrishvili.** "Problems of Mechanics", Tbilisi, 2021, № 4(85), pp. 27-34, (Engl.).

A design of a combined protective device of a two-circuit turbojet engine, including a system of protective grilles of different sizes and a reflector in the form of movable blades is proposed. The protective device is designed to prevent various foreign objects from entering the engine, as well as birds. The method of calculation of protective gratings is given. The proposed combined protective device provides an increase in the reliability and safety of turbojet engines.
5 ill. Bibl. 9. Engl.; sum. in Russian.

SEEPAGE ANALYSIS OF A NONRESISTANCE PRESSURE TUNNEL LINING. **M. Kalabegishvili, G. Kipiani, A. Buachidze.** **"**Problems of Mechanics". Tbilisi, 2021,, № 4(85), pp. 35-44, (Engl.).

Seepage occurring from cracks developed under operational loads in concrete or reinforced concrete in non-crack-resistant pressure tunnels has an adverse impact both on the rock massif and tunnel lining. This report documents the methodology that has been used for combining static and seepage parameters with the use of finite element method (FEM). Based on cycle-iteration calculations crack development and accompanying seepage flow parameters have been determined to reflect the interaction between the rock and the tunnel lining (concrete or reinforced concrete). The report presents a general calculation model and certain results obtained during the investigation, of the Enguri HPP Pressure Tunnel. 3 ill, Bibl. 3. Engl.; sum. in Russian.