COMPUTATIONAL SOLUTION OF THE ELASTICITY THEORY CONTACT PROBLEM WITH THE UNILATERAL CONSTRAINTS BY MEANS OF THE FINITE ELEMENTS METHOD MIXED NETWORK

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Abstract

This work introduces the solution of the elasticity theory contact problem with the unilateral constraints by means of the finite elements method with the use of hybrid formulation — the Reissner's functional. The solution of the saddle system of linear equations arising from the search of this functional stationary point through the use of symmetrical sequential overrelaxation modified method is connected to a set of features, the main feature being the need for monitoring the non-negativeness of displacements on the contact surface.

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