ABSTRACTS

ANALYSIS OF INDUCTIVE SENSOR FIXING CLAMP IN RAILWAY APPLICATIONS
(pages 35-40)

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Abstract: This paper provides static, modal and dynamic analysis of the assembly consisting of fixing clamp, inductive sensor, two fixing bolts and frame applied on railway stock. All the necessary tests to perform this analysis are in accordance with the standard EN 61373: 2010 or the Slovak standard STN EN 61373: 2011. In the next part, a simulation of the tests required for the dynamic analysis of the modelled assembly is performed. For each analysis, von Misses stress is evaluated and then compared to the yield strength of used material. Finally, this work provides a proposal for new design solutions of the fixing clamp based on the obtained results. All analyses were performed in ANSYS Workbench programme using finite element method.

COMPUTER SIMULATION USING MSC ADAMS
(pages 41-46)

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ABSTRACTS

Abstract: The goal of the presented paper is to compile a two-link model of manipulator and control the movement of the basket mounted at its end-effector. Authors focus on using MSC Adams in simulation of the motion of a two-link manipulator model. Attention is paid to kinematic and dynamic analysis of the manipulator, its modelling and control. The capability of MSC Adams Control Toolkit is used to design a control system which keeps the basket of the end-effector in horizontal position. Finally, the results obtained by computer simulation of the model are evaluated.