

EVALUATION OF VEHICLE MOTION FOR ELECTRODYNAMIC TRANSPORT SYSTEM WITH PLANE TRACK ON SIDE TRACK OF TURN-OUT

The research aim is to provide the possibility of the vehicle motion of an electric dynamic transportation system on the turnout of a plane track, using mathematical modelling. The research novelty is to estimate a safe motion of the chassis vehicle on a side track of the track. It is shown that a safe motion of the vehicle at the speed of 10 and 15 m/s can be realized for the turnout consisting of two curves with a constant radius of 350 m and a straight insert. Therein lies practical importance.

Keywords: plane track, side track, turn-out, electrodynamic transport system.

1. *Dzenzersky V. A. Dynamics of Nontraditional Vehicles Using Superconducting Magnets (in Russian) / V. A. Dzenzersky, N. A. Radchenko, V. V. Malyi. – Dnepropetrovsk: Art-Press, 2011. – 248 p.*
2. *Dzenzersky V. A. Stability of motion on chassis and under levitation of electrodynamic transport vehicle (in Russian) / V. A. Dzenzersky, T. L. Guba, T. I. Kuznetsova, N. A. Radchenko, N. M. Khachapuridze // Vestnik Khersonskogo Natsionalnogo Universiteta. – 2008. – P. 144 – 148.*