

Seismic impact of the railway on the geotechnical constructions

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Abstract. Nowadays, the focus on more ecological means of material and persons transport is still higher. Big loads can be transported on railways more effectively and with lower environment impact than on roads. The geotechnical structures are inherent parts of railway infrastructure, such as embankments, sides of notches and, of course, tunnels, foundation constructions of buildings or pillars of bridges and the others geotechnical constructions (e.g. retaining walls, culverts, transition area of bridges). By train pass, vibrations are caused and these vibrations are relayed to the soil. These vibrations can make adverse impact to surrounding objects and to technologies placed in. This so far uncared-for influence gets into the foreground by current trend of everyday life technical equipment increasing. The article introduces different kinds of geotechnical structures and the influence of by-passing railway transport on their constructions and surroundings. The data are evaluated in the amplitude and frequency domain.