Eugeniusz Skrzyński: Stability of Soil Subgrade

The loss of stability of earthworks is one of the most difficult geotechnical problems, and recognition and prevention of them requires a lot of knowledge and experience. Despite advanced construction technologies, landslides are still emerging, as a result of which considerable material damage is caused to the transport infrastructure. Land volumes undergoing landslide movements can vary within very wide limits, from small landslide slopes to huge slopes and runoffs in billions of cubic meters.

The article presents the complexity of assessing the stability of a railway subgrade, resulting from, among others, the history of its construction and data availability on most lines managed by PKP PLK S.A. A significant differentiation of the certainty (safety) coefficients assumed in the assessment of trackbed stability is indicated. Factors causing this diversity are given, among others, limited possibilities to obtain reliable data for calculations. New coefficient values have been proposed. This article does not apply to subsoil on high-speed lines.

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