Tendencies in the development of operational quality of ballasted and ballastless track superstructure and transition areas

Libor Ižvolt¹, Janka Šestáková¹ and Michal Šmalol¹
¹University of Žilina, Faculty of Civil Engineering, Department of Railway Engineering and Track Management, Univerzitná 8215/1, Žilina, Slovak Republic

E-mail: michal.smalo@fstav.uniza.sk

Abstract. Department of Railway Engineering and Track Management is cooperating with Slovak Railways (Železnice Slovenskej republíky – ŽSR) on assessment of quality of railway tracks, structures of railway tracks and parts of these structures. One of diagnostics methods is monitoring of track geometry focused on durability of ballastless track quality and its transition area to ballasted track. The diagnostics is carried out by continuous method and results are used for prediction of future degradation of construction. The first part of the paper deals with a brief recapitulation of information about the experimental sections and the methods of diagnostics of track geometry. The second part of the paper is carrying out the analysis and prognosis of development of the quality of construction of the experimental sections, which is a tool for the track superstructure maintenance planning.