Analysis of Driving Performance Data for Preventing Train Stop Position Errors

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The purpose of this study is to clarify factors causing train stop position errors through analysis of driving performance data. One of the factors that adversely affect the accurate operation of railways is the error related to station stop. We classify train stop position errors into two kinds of error: the delay in braking manipulations, and the misrecognitions of stop positions. In logistic regression analysis used in this study, the objective variables are existences of driver's experience of the delays in braking manipulations and the misrecognitions of stop positions. As the explanatory variables, we use evaluation indexes based on the driving characteristics recorded in driving performance data and characteristics of stations. The results of logistic regression analysis used in this study reveals the relationship between these errors and various factors. This paper describes the relationship obtained in this study.