

Abstract. The aim of this paper is to predict the velocity of motorcycle in road humps using four scenarios of multiple linear regression models and calculate the accuracy of the four models. Observation data is obtained from real observations on 12 road humps of different sizes. Observation data contains the relation between the size of road humps (height and width) and the velocity of motorcycle. The four equations obtained are tested using the simultaneous test of the regression model. From the simultaneous test results, it is found that all four models can be used. Here, the best model for predicting motorcycle velocity on road humps is multiple linear regression with an interaction term $\hat{y} = 0.423098 - 0.239855x_1 - 0.256208x_2 + 0.320934x_1x_2$ because it has the best RMSE and R-squared values.