

國立交通大學

運輸科技與管理學系

碩士論文

路側障礙物對機車
側向淨距與車速之影響

Effects of Roadside Obstacles
on Motorcycles' Lateral Clearance and Speed



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中華民國九十四年六月

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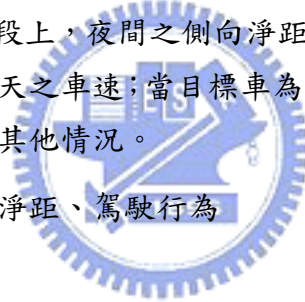
國立交通大學運輸科技與管理學系碩士班

摘要

本研究目的在於瞭解機車騎士面臨不同道路線型與路側障礙物之下，其側向淨距與車速之改變。研究利用實地觀測之方式，透過攝影機與雷射測速槍收集駕駛行為之相關資料，實驗地點分為三種不同線型之道路，其中一地點為包含機車優先道之直線路段，另一地點為無機車優先道之直線與曲線路段。在這三個路段之路側，分別放置機車與小汽車，藉以瞭解不同環境下，機車車速與側向淨距之差異。

結果顯示，當路側有停置汽車或機車障礙物時，曲線路段之側向淨距會顯著地大於直線路段；在直線路段上，夜間之側向淨距會顯著地大於白天側向淨距，夜間之車速會顯著地高於白天之車速；當目標車為重型機車或是目標車後座無乘客時，其車速會顯著地高於其他情況。

關鍵字：路側障礙物、側向淨距、駕駛行為



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ABSTRACT

The main purpose of this study is to investigate the change of lateral clearance and speed of motorcycles under various environmental conditions. Information of driving behavior using a video camera and a laser speed gun were collected. The experimental locations are three different roadways. One is the straight course with an exclusive motorcycle lane. The other two are the straight course and winding course both without exclusive motorcycle lanes. Parked motorcycle and car were set up on the roadside of these roadways to evaluate the differences of motorcycle speed and lateral clearance.

The result shows that the lateral clearance of the winding course will be significantly greater than the straight course. On the straight course, lateral clearance in the nighttime is greater than in the daytime. The nighttime speed is much higher than the daytime speed. Moreover, the speed of the heavy motorcycles and the ones without back-seat passengers is higher than other driving conditions.

Keywords: Roadside obstacles, Lateral clearance , Driving behavior