

# 高速公路鄰車道事故對大客車駕駛者視覺與駕駛行為影響之模擬研究

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## 摘要

In recent years, bus accident has become an important issue in traffic safety in Taiwan. According to the bus accident statistics from 2002 to 2006, the main factor of A1 type accidents is the distraction of bus driver. A car accident happens suddenly on freeway often causes to drivers' visual distraction. It is a visual distraction event which usually happens on freeways in Taiwan. This visual distraction will further result in a serious traffic impact when drivers are not in ideal driving conditions (including physical and mental conditions). Therefore, conducting a study on the visual distraction of car accident event, and then proposing the related traffic management strategies or developing related driving assistance systems is an important topic on bus safety improvement. This study integrated a bus driving simulator and the faceLAB system to design a driving scenario of car accident event on freeways, and analyzed visual and operational impacts of the event on bus drivers. Results indicated that the standard deviation of spacing between two vehicles and the perception-reaction time of bus drivers were influenced by a car accident event. In addition, there was no significant difference in the standard deviation of spacing between car accident events and no car accident events. However, the difference in the perception-reaction time between car accident events and no car accident events was significant. Results of this study could be helpful in developing the human factor parameters of bus collision warning systems in the future.

關鍵字：Bus, Car Accident, Visual Distraction, Driving Simulator, faceLAB System.