

高速公路大客車跟車駕駛反應時間與車間距離關係之模擬與分析

張建彥, 張靖, 魏智浩

運輸科技與物流管理學系

管理學院

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摘要

The perception reaction time (PRT) of car following of driver is an important driving behavior characteristic of road traffic. It is also an important parameter for the design of traffic engineering devices and advanced vehicle safety warning systems. Therefore, the study of proper perception reaction time of car following for different vehicle drivers under various traffic and road conditions has become a very important issue in driving behavior research. This study utilizes a bus-driving simulator to develop a car following experiment design for bus driving on a smooth and straight freeway section. Data of car following perception reaction time were collected and analyzed when bus drivers in the experiment detected and responded to the deceleration and acceleration incidents of a front car. The relationship between perception reaction time and vehicle spacing is also analyzed. Some results of this study will be a useful basis in developing safety regulations concerning car following spacing and rear-end collision warning systems for bus driving behaviors.

關鍵字：Perception Reaction Time, Advanced Safety Vehicle, Warning System, Bus-Driving Simulator, Spacing.