# Visual Simulation Design for the Bus Driving on Freeways by Utilizing the FaceLAB System

張建彥,魏智浩

Transportation Technology and Logistics Management

Management

0

## Abstract

According to road traffic accident statistics by the Ministry of Transportation and Communications, bus drivers not paying attention to frontal road traffic conditions is one major cause on freeway systems in Taiwan. In addition, bus driver distraction is the major factor related to this cause. To analyze bus driver distraction by visual influence, this research integrates the faceLAB system and a bus driving simulator to develop a freeway driving scenario with various visual influence events for bus driving simulations. By the bus driving simulations, we could investigate and analyze the bus drivers' visual conditions and distraction levels. The related traffic engineering recommendations could be presented. Moreover, the parameters or thresholds of bus safety driving assistance systems can be developed based on the participants' response behavior and visual parameters.

Keyword：Bus, Freeway, Distraction, faceLAB, Visual Condition.