

Drury's ID 與移動時間迴歸係數驗證

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摘要

國內有車階級人數的增加，使得駕駛的安全性受到駕駛者的重視。在高速行駛下，腳部動作的準確性和時效性，往往是決定事故嚴重程度的關鍵因素。因此，建立以國人之人體計測值之腳部預測移動時間指標，是刻不容緩的。Drury's ID腳部移動時間迴歸係數是預測腳部移動時間的有效指標，但其採用的是西方人體計測值。故本研究基於各種族之人體計測值差異及槓桿原理觀點，並利用實驗室研究法來探討Drury's ID腳部移動時間迴歸係數，用於預測國人腳部移動時間及用於實務上之腳控器設計時，腳部移動時間的適用性，並予以修正。並以統計分析人體計測值、踏板設置參數與Drury's ID腳部移動係數之間的相互影響關係。實驗結果發現，人體計測值與踏板設計參數對於腳部移動時間都有顯著差異。因此，Drury's ID腳部移動時間於預測國人腳部移動時間及實務應用上仍有修改空間。故本研究以國人之人體計測值對Drury's ID腳部移動時間迴歸係數提出修正，以便能正確評估國人之腳部移動時間。並提供給後續之研究者一些實務應用設計上的參考建議依據，如腳控器設計及腳部移動時間之預測。

關鍵詞：人體計測值；槓桿原理；移動時間

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