線控煞車系統測試平台設計與實驗

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摘 要

隨著車輛科技產業的蓬勃發展，人們對於行車安全的重視是日益趨增，其煞?系統直接關係著駕駛人員的生命安全，煞?系統的相關研究亦相對提高?其重要性。

本研究旨在探討煞車模擬測試平台建立與線控煞車系統作動之響應及煞車性能測試。利用煞?系統作動情況設計一煞?模擬測試平台，再根據平台架構利用LabVIEW圖控式軟體，設計一套動態即時監控介面，針對線控煞車系統作動響應進行探討。

根據煞車踏板踩踏速率不同，利用三角函數邏輯關係，初步訂定出三大模式，再根據三大模式關係利用LabVIEW圖控式軟體，結合C語言程式控制線控煞車系統作動之響應。並利用煞車模擬測試平台，測試線控煞車系統之煞?性能，再與煞車法規FMVSS NO.122做比較。測試結果得知，線控煞車系統經程式控制後，其作動響應能即時跟隨煞車踏板踩踏速率變化而調變。

關鍵詞 : 煞車試驗平台、線傳煞車

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