

# 新型並聯式複合動力系統能量管理策略之研究

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## 摘要

本研究討論新型並聯式複合動力系統能量管理策略之研究，此系統最大的機構特色於為動力整合分配機構，當電動馬達及內燃機輸出動力於動力整合分配機構，動力源可單一或是同時驅動動力整合分配機構，而機構上有單向離合器防止內燃機端反向逆轉，故兩動力源在單獨輸出時不會被另一不作動之動力源干擾。兩輸入之動力源也可由動力整合分配機構互相整合成一較大之動力源，其輸出之能量加倍能達至路面所需之牽引力。以此系統推導其動態方程式，了解動力源流向及使用套裝軟體 Matlab/simulink以模組化方式建立系統各元件。配合模糊邏輯控制發展此系統之新型並聯式複合動力系統能量管理策略。由模擬得知，經由模糊邏輯控制器控制下，電動馬達及內燃機可調至最佳之動力區下運轉，控制結果顯示內燃機可於各種行駛狀態下維持於最佳運轉區域。

關鍵詞：新型並聯式複合動力系統能量管理策略，動力整合分配機構，最佳運轉區域

## 目錄

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