永磁式同步馬達伺服驅動器設計實務 = Implementation and design of a permanent magnet synchronous motor driver

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摘 要

本論文針對永磁同步馬達研製驅動系統，並以編碼器取代霍爾元件，做為檢出永磁同步馬達轉軸的位置的方法。在控制硬體上，使用Microchip公司所生產之dsPIC30F4011數位訊號控制器(DSC)晶片為控制核心，並驅動規格為30W、轉速4000rpm、8極的安川永磁同步馬達[SGM-A3A312]。 最後完成驅動器實作，並配合控制永磁同步馬達，提出實驗 測試結果。

關鍵詞 : 永磁同步馬達、編碼器、數位信號控制器 dsPIC30F4011

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