

圖形監控系統應用在機電整合系統之研究

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中文摘要

由於時代和環境的變遷，目前不僅工廠勞工日益短缺，產品更是少量多樣化，產業自動化已是勢在必行，其中「機電整合」尤其是自動化呼聲中最熱門的一股潮流；它涵蓋了機構裝置設計，感測轉換技術，電腦控制與通訊各領域，因而機電整合設備較傳統設備複雜多變，更顯出其人機界面問題之重要性。本研究乃針對此問題，利用一套 PC 級中文圖形監控軟體為發展工具，結合可程式控制器與機電整合實驗控制系統，配合軟體設計與硬體線路連接，設計一套具有高度的親和力，能模擬實際的生產自動化或製程之圖形監控系統，以提供產業、學界人員研習自動化系統與機電整合技術之參考。

關鍵字：系統；圖形監控系統；機電整合；可程式控制器

Abstract

It is necessary to implement manufacturing automation in today's industry because of less labor and product diversity. Mechatronics is growing popular especially among these automation technologies. It covers so many fields such as mechanism design, sensor technology, computer control and communication. Therefore, Man-Machine Interface plays a more important role on mechatronic devices than ever. In this paper, the main target is to design a user friendly graphic man-machine interface system simulates manufacturing automation. The method is to utilize a PC-based graphic supervisory software integrated with PLC & mechatronic's laboratory system to build working experimental devices, including of software design and hardware circuits connection.

Key words : Mechatronic; PLC; Graphic supervisory system