

可程式控制結合微控制器於汽車電學數位學習網之研製

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摘要

本文提出利用數位學習(E-Learning)的概念，結合可程式控制器(Programmable LogicController; PLC)的編譯軟體，與 89S51 單晶片微控制器，透過線上學習網站及遠端監控的架構，讓想要學習汽車電學相關知識的使用者，能夠透過互動式的 FLASH 動畫介面輕鬆學習，迅速獲得想要習得的知識，並能在書面上的教學指導後，直接以遠距監控的方式操控在實驗室中的實驗板，驗證學理在實驗上能否準確的應用，並加以實現。

關鍵字：可程式控制器;數位學習;汽車電學

To Construct the E-Learning Website of Automobile Electricity by Combination of PLC and Microcontroller

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Abstract

This article proposes the idea that combining the translating and editing software of Programmable Logic Controller (PLC) with 89S51 single-chip controller enables users to acquire Automobile Electricity relative knowledge by taking advantage of E-learning web sites as well as remote monitored and controlled frames. Depending on the interactive interfaces of flash video, the learners can acquire knowledge easily and quickly. After the instrument in writing, the learners can also control the experimental instruments in the laboratory directly by the remote monitored and controlled system to verify the application and achievement of the theory experimentally.

Key words : Programmable logic controller;E-learning;

Automobile electricity