

بسم الله الرحمن الرحيم

***Sudan University of Science &
Technology
College of graduate studies***

A thesis

***Submitted for partial fulfillment for the
award of MSc in computer engineering***

***Microcontroller Activation of
Programmable parallel Interface (PPI)***

***تفعيل معدة الربط البيني المتوازي
بواسطة المتحكم الدقيق***

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Dedication

- *to my greater family, mother ,
father brothers ,sisters*
- *to my teachers*
- *to my wife*
- *to my friends*

Acknowledgment

There is no doubt no one in our life can do or perform any work without having assistance t from other because we all need a help from others according to that I want to give my great thanks to all people that help me in my research and I want to dedicate some people with special thanks for the assistance and support

- My supervisor Dr Abed rasoul Al zubiadi*
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Abstract

There is no doubt that the automatic control system has made a great move step in control systems that is lets the scientists thinking to find an enhanced techniques for making a control operation easier .As a result of this work, the control by the electronic programmable devices layout can be used in most engineering and electronic applications. As an example of that, the parallel interface control .This types of control lets microcontrollers monitoring and controlling a great number of devices that are connected to it easily .Several companies are manufacturing a thousand of integrated circuits designed to be used with the microcontrollers .Hence the system will be suitable for different applications and guides to solve many problems. All these performance let us to go forward in the design of the electronic circuit.

المستخلص

إن دخول التحكم الآلي إلى عالم الأنظمة لاشك انه قد احدث نقلة كبيرة ونوعية في علم التحكم مما دفع الباحثين والمهتمين بهذا المجال من التفكير في إيجاد تقنيات حديثة ومبتكرة لمزيد من التطور والتسهيل والدقة لعملية التحكم على الأنظمة ونتيجة لذلك ظهر التحكم الآلي من خلال القطع الإلكترونية المبرمجة في كثير من التطبيقات الهندسية والإلكترونية المختلفة وكمثال لهذه التطبيقات عملية الربط البيني على التوازي للأنظمة مع الحاسوب من خلال القطع الإلكترونية المبرمجة مكن من التحكم والمراقبة لكثير من المعدات التي تم ربطها مع الحاسب في سهولة ويسر وما كان ليحدث ذلك لولا التقنيات الإلكترونية الحديثة التي كان لها القدر المعلى في ظهور كثير من التطبيقات الإلكترونية والهندسية وحيث بدأت الشركات في إنتاج القطع الكترونية المبرمجة لأغراض خاصة تناسب التطبيقات المعينة مما عمل على حل كثير من المشاكل المعقدة في السابق وكل هذا يدعونا إلى إن نعطي عملية الربط البيني للأنظمة المختلفة مع الحاسب مزيد من الاهتمام ونعمل على إيجاد وتطوير وسائل إضافية المزيد من التسهيل في عملية التحكم في ظل التطور المتسارع للتقنيات الكترونية .

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