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*DESIGN AND CONSTRUCTION OF A
MICROCONTROLLER-BASED
POWER TIMER*

Design Project

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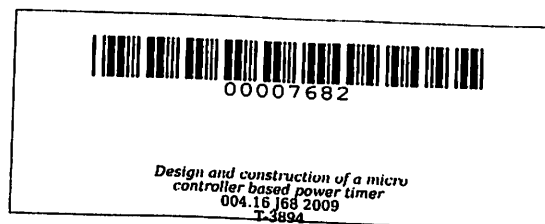
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**DESIGN AND CONSTRUCTION OF A
MICROCONTROLLER-BASED
POWER TIMER**

**Undergraduate Design Project
Submitted to the Faculty of the
Cavite State University
Indang, Cavite**

**In partial fulfillment
Of the requirements for the degree of
Bachelor of Science in Computer Engineering**



**JULIUS A. JOLOC
JEFFERSON B. NAZARENO
April 2009**

ABSTRACT

NAZARENO, JEFFERSON B. AND JOLOC, JULIUS A. Design and Construction of Micro Controller-Based Power Timer. Undergraduate Design Project. Bachelor of Science in Computer Engineering, Cavite State University, Indang Cavite. Adviser: Cesar C. Carriaga.

The study was conducted to design and construct a Micro Controller-Based Power Timer that can automatically turns on and off electrical power appliance that its outlet.

The developed machine was composed of the following components: 12V adaptor, relay output, extension cord, micro controller, and LCD. The 12V adaptor serves as the power supply for the microcontroller unit. The relay output serves as the switching mechanism that turns on and off the outlets. The extension cord with five sockets is where the appliances are to be plugged. Liquid Crystal Display (LCD) serve as the screen of the designed device where the set schedule of operation of individual socket are displayed.

The designed device was able control the on and off of the individual outlet from 10 minutes to 12 hours time interval.

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DESIGN AND CONSTRUCTION OF A MICROCONTROLLER BASED POWER TIMER^{1/}

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JOLOC, JULIUS A.**

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INTRODUCTION

Most of our appliances do not have the capacity to set it off and on its power automatically. Present designs of electric fans, old models of TV sets, radio receivers and air conditioners do not have internal timers. Though, there are some appliances that can program the time to turn on and turn off. Like the modern television, there is a program that can be set the time it will turn off and on.

There are cases that we forgot to turn off our appliances after using them which continuously used electrical energy, and sometimes caused overheating to the appliances. A power timer is designed to address these problems.

Power timer is an electronic device that can control the turning off and on of appliances. This device can schedule the time each outlet to turn on or off. This will minimize electrical consumption.