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FACULTY OF ELECTRICAL ENGINEERING



DIGITAL CLOCK WITH SETTING
FUNCTION

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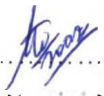
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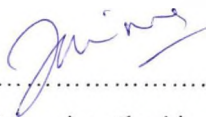
With the name of Allah. The compassionate, the merciful, praise be to Allah, the lord of the universe and may be blessing and peace of Allah be upon his messengers.

First and foremost, thank Allah s.w.t THE ALMIGHTY, for giving us energy and opportunity to complete this project. In this opportunity we would like to express our deep sense of gratitude and appreciation to our project supervisor miss Taniza Tajuddin for the consistent help and guidance as well as prevision of your valuable time, encourage and patient during the period to complete this project. We are grateful to you and we will never forget for everything that you have sacrifice.

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Wasallam.


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ABSTRACT

The digital clock with setting function has three units circuit: power supply unit , digital clock unit and display unit. To operate the digital clock , we use voltage from power supply that had been regulated by voltage regulator 7805.

In this project , concentration are given for digital clock unit and display unit only. Timer 555 is used as a clock oscillator to produce pulses. Then decade counter, 7490 and 7092 are used to count he pulses. BCD to seven segment code, 7447 are used to convert the 4 it BCD code into a seven segment code at the display. All the display are common anode and indicates time between 00.00 to 23.59 hours. Switches are used for setting the desired time.

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CHAPTER 1

INTRODUCTION

1.1 General

Digital clock is a device that tells time whether in the dark and bright. That is because the display units are construct by LEDs. This LEDs are drive by IC 7447 to get a decimal number. IC 555 is a timer and connect to other ICs like 7490 and 7492 to get the time 60 second for one minute.

1.2 Scope of Work

This project is important to know about an ICs function. This project need a patience and concentrate. All theory about all equipments are very important to remember because these are useful at the future. This project fully complete around one year.

1.3 List of Parts

1.3.1 Semiconductors

IC1	-7805, +5 voltage regulator
IC2	-555 timer
IC3-IC5,IC7,IC9,IC10	-7490 decade counter
IC6,IC8	-7492 divide-by- twelve counter
IC11	-7408 quad two input AND gate
IC12-IC15	-7447 BCD to 7 segment decoder
D1-D4	-IN4002 diodes