

H.T.I

ELECTRONIC ENGINEERING COURSE

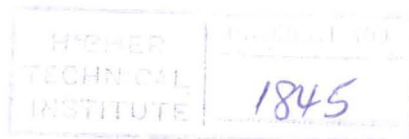
DIPLOMA PROJECT

MICROPROCESSOR CONTROLLED TIMER

- E/758 -

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SUMMARY

In this project titled "Microprocessor Controlled Timers" the design of such a timer is studied and its software design is treated.

This project can be considered as an experimental unit, primarily designed for demonstration purposes. It is made up of two main parts: Hardware, which is the group of physical components constituting the system, and Software, which is the group of instructions located in the EPROM of the system.

The procedure for the development of both parts, includes three basic stages:

1. Design
2. Construction and
3. Testing

Design includes the study of several approaches to the solution of the problem, taking into account several factors, such as the availability of components, feasibility of construction (dependent on the availability of various instruments etc.) and of course, its economical aspect.

Construction, is to bring design into practice.

In the case of hardware, it includes the construction of PCB's and the mounting/assembly of the various components to form its circuitry, taking into account various factors. Such factors are the efficiency of the system under its working conditions, practicability in usage and various precautionary measures (concerning overloading etc.).

In the case of software, by "construction" we refer to the construction of a program which is responsible for the execution and control of the various functions in the system.

Testing has been performed using various instruments such as probes, logic analyzer and by trying various programs using the system.

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